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# Welcome

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Assistant Editor

**Craig West**  
Assistant Editor

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Art Editor

**Andy Mason**  
Advertising Manager

**Danielle Tempest**  
Production Controller

This month, I will hand over my usual Editorial 'rant' about Heathrow's third runway and the planned airport in the Thames estuary to the CEO of Ryanair, Michael O'Leary, who expressed his views during a press conference at the end of February.

He called for new runways to be built at London/Heathrow, Gatwick and London/Stansted to solve capacity problems in the southeast of England, adding that plans for a new airport in the Thames estuary, nicknamed 'Boris Island', were "pie in the sky" and would never get funded.

"This government does not have an aviation policy - all they have is Boris running around talking about an airport that will not be built for another 30 years. You cannot build one in the estuary because you would have to build a motorway and rail infrastructure to get you there. It is in "the estuary of Boris [Johnson's] imagination" and is "complete and utter bloody lunacy even by Boris' standards."

"We [Ryanair] have called for the government to build a third runway at Heathrow and second runways at Gatwick and Stansted. There's room for all three - they should be built straight away. The problem would then be solved within five years and at a fraction of the cost. Otherwise, the UK will continue losing out to European airports such as Paris, Madrid, Schiphol and Frankfurt."

The Department for Transport is due to unveil a report on its aviation strategy in March. It will look at all options for increasing capacity in the south-east, apart from a third runway at Heathrow which has been ruled out by the coalition government. Mr O'Leary continued by calling for the government to "stop pandering to the idiot environmentalists and even less sensible nimbys," and add the extra runways.

The outspoken CEO then turned his attention to Boeing and the new 737 MAX. He described the new variant as a "dog's dinner of a design" that had been drawn "on the back of a fag packet as a response to the [Airbus] neo."

He is also pressing the manufacturer to look at the provision of a standing-only area on its aircraft. This would require the removal of the rear lavatories and final six rows of seats in the 737. "We won't place any new order until they [Boeing] come up with a fix for this issue," said O'Leary - I wish him luck!

Included in this bagged issue for readers in the UK and Ireland - plus all subscribers - is the Airliner World 2012 UK and Ireland Airlines Guide. Those worldwide readers who would like a copy of the supplement - or perhaps more simply a pdf - can email their request to me at [tony.dixon@keypublishing.com](mailto:tony.dixon@keypublishing.com) and I will gladly send them one by return.

**Tony Dixon** Editor



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## CORRESPONDENTS

Michael Clayton,  
Eyal Crump,  
Yannick Delamarre,  
Marco Finelli,  
Bill Kokkotas,  
Javier Rodriguez,  
Joe G Walker.



**GROUP EDITOR-IN-CHIEF**  
Paul Hamblin

**COMMERCIAL DIRECTOR**  
Ann Saundry

**PUBLICATIONS**  
Production Manager Janet Watkins

**MARKETING**  
Marketing Manager Martin Steele

**EXECUTIVE CHAIRMAN**  
Richard Cox

**MANAGING DIRECTOR & PUBLISHER**  
Adrian Cox

**EDITORIAL & ADVERTISING OFFICES**  
Airliner World, PO Box 100, Stamford, Lincs,  
PE9 1XQ, UK. Tel: +44 (0)1780 755131  
Fax: +44 (0)1780 757261

**EMAIL:** [airlinerworld@keypublishing.com](mailto:airlinerworld@keypublishing.com)  
**WEB:** [www.airlinerworld.com](http://www.airlinerworld.com)

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# Hard Times For Airlines



A line-up of Malév Boeing 737s at Budapest Airport, prior to the carrier's demise. (Tamás Martényi)

THE LAST few months have been difficult for carriers worldwide. The global financial downturn and ever-increasing price in aviation fuel have resulted in the 'tightening of belts' for many operators. However, in some cases it has not been enough and a number of airlines have ceased flying – some promising a swift return to services and others accepting their fate. Among airlines affected are: Cargo Italia, Czech Connect, Cirrus Air, PAWA Dominicana, Aserca, Variglog and Air Zimbabwe, with others – such as Velvet Sky – struggling for survival. Two of the more high-profile European operators to have stopped flying are

Hungarian national carrier Malév and Spanish operator Spanair.

## MALEV

At the start of February, the Hungarian Government put state-owned carrier Malév into bankruptcy protection – according to its CEO Lorant Limburger, who added that the company was running out of money. Despite an initial agreement with aircraft lessor International Lease Finance Corporation (ILFC) to continue to make the aircraft available for operations, flights ceased and most of the Boeing 737s were flown to Shannon, Ireland for temporary stor-

age and release. The -500s have since gone to the USA for desert storage and probable parting out. On February 14, 2012 the Metropolitan Court of Budapest declared Malév Ltd insolvent and ordered its liquidation.

It came after the European Commission ordered the airline to repay various forms of state aid received from 2007 to 2010. Figures involved amounted to £108million – a sum equal to its entire 2010 revenue. The carrier employed 2,600 people and was responsible for close to half of all air traffic at Budapest's Ferenc Liszt Airport.

However, other European carriers – including British Airways, Air France,

KLM, Lufthansa and Brussels Airlines – were quick to increase frequency on their existing Budapest routes. At the same time, low-cost carriers such as Germanwings and Wizz Air followed suit on their existing routes and also announced new routes to help market recovery. Air Berlin launched a new service between Budapest and Berlin and Ryanair plans to start five new routes in March.

## SPANAIR

At the end of January Spanish carrier Spanair ceased all operations and cancelled its flights. The company had been informed that it would not receive any more loans backed by the Catalan Regional Government, and Qatar Airways had withdrawn from talks about buying into the Barcelona-based carrier.

The SAS Group had a 10.9% stake in the company and said that "the value of these shares has already been written down and are booked at zero value." The Group added that it would follow customary creditor procedures in the upcoming bankruptcy process.

Spanair was a member of the Star Alliance and had issued a statement in early 2011 saying it was in "an emergency financial situation." It had a fleet of 29 aircraft – mostly Airbus A320s – which have been returned to lessors.



A large number of Spanair aircraft were ferried to both Dublin (nine) and Shannon (two) for storage. The aircraft arrived in Ireland between February 14 and 16, 2012. The image shows aircraft at Dublin on February 18 and the line up includes: eight Spanair aircraft, one Malév Boeing 737 and a HellasJet Airbus A320. All belonging to companies that very recently went out of business. (Michael Kelly)



## New Livery For Monarch

Pictured at Manchester in early February is Monarch's Airbus A320-214, G-MRJK (c/n 1081), wearing the carrier's new livery. (Nik French)



## Berlin Brandenburg Comes to Life

THE FIRST passengers have checked in to Berlin Brandenburg Airport (BER) on February 7, 116 days before the facility officially opens. Approximately 250 volunteers participated in the first of a series of trials that will fully test the airport and its systems before operations begin. The volunteers simulated departing passengers, testing all the processes involved in normal day's operations. The testers were first given a safety briefing – BER remains a building site and appropriate precautions had to be taken – after which they were allocated flights and allowed to enter the new terminal as its first wave of passengers. First going to the relevant check-in desks, where luggage was dropped and boarding passes issued, they then proceeded through the security checkpoints manned by the German police force, before going to the main pier at the other end of the terminal, where

they simulated the boarding process at their gate. Some of the volunteers were given 'event cards' that enabled them to enact different scenarios, such as withdrawing from a flight after checking in luggage and asking to change seats when boarding, to further test the airport's systems.

Speaking after the first trial of the facility, Professor Dr Rainer Schwarz, CEO of Flughafen Berlin Brandenburg, said: "We are very pleased with how the day went. Most of our processes worked well and the vast majority of testers gave positive feedback." Before the airport officially opens, further trials will take place on 30 separate days leading up to May 16, with a total of 10,000 volunteers playing the role of passengers, with the aim of identifying and rectifying any errors or problems in workflows leading to a smooth opening on June 3, 2012.

## Southend Expansion

THE NEXT few weeks are going to be busy ones for staff at London/Southend Airport. Firstly on March 5, the new terminal is going to be opened by The Secretary of State For Transport, The Rt Hon Justine Greening MP. This will quickly be followed by the official use of the 984ft (300m) extension at the southwestern end of the runway on March 8 and finally the commencement of up to 70 low-cost flights per week

by easyJet, starting on April 2.

Airline World joined the carrier in February on what was the first flight to 'use' the terminal. The 'passengers' included easyJet employees who had travelled to Southend to coordinate the forthcoming services and the aircraft was then used by the ground handling team to practice towing procedures etc. (See next month's issue for a full report on the new terminal.) (Photo Key – Tony Dixon)



## Danish Malteser

Danish Air Transport took delivery of de Havilland Canada Dash 8-102, 9H-AEW (c/n 222) on February 24. The aircraft is being operated on a three-month wet-lease from Maltese carrier Medavia. (Malcolm Bezzina)

## Luton Unveils Expansion Plan

LONDON/LUTON Airport has unveiled plans to double its capacity to 18 million passengers per year. Proposed changes include a reconfigured road access to the terminal area and a new, multi-storey car park. Airside developments will include an extension to the current parallel taxiway and the installation of high-speed exists, eliminating the need for aircraft to backtrack down the runway.

The proposals will be open for consultation until March 26 with the airport authorities expecting to submit a planning application the following month.



## Estonian Opts for E-Jets

ESTONIAN AIR has confirmed plans to replace its current fleet of narrow-body and regional aircraft with the Embraer E-Jet family. The carrier has signed a contract with the Brazilian manufacturer for three, 88-seat E175s and a single E190 with the first delivery expected in spring 2014. The airline will also lease a further eight examples, consisting of both E170s and E190s; four, 76-seat E170s will be acquired from Finnair with the first expected to join the carrier during March.

"We chose Embraer E-Jets to replace our current fleet of Boeing 737s and Bombardier CRJs because the 'one family' concept offers the capacity flexibility we need to pursue our immediate expansion and fleet modernisation objectives. The aircraft will deliver a standard of in-flight experience that will keep us competitive and allow us to access new markets with lower risk than using larger jets," said Estonian Air President Tero Taskila. "We have also been following with great interest

the analysis that Embraer is conducting to launch a second generation of its E-Jets, using new engines, with possible entry into service around 2018. I am particularly pleased that, despite being a small carrier, Embraer is taking our requirements and comments into consideration in the new E-Jets design. We like to remain at the forefront of technology and this new aircraft would clearly be a great way to ensure we always offer the very latest jet technology to our passengers."

## KLM Asia Gets Triples



Dutch national carrier KLM's Taiwan-based subsidiary KLM Asia has started replacing its seven Boeing 747-400s with a similar number of 777-300ERs. The first aircraft, PH-BQF (c/n 29398), is pictured on February 26 wearing revised titles. (Kees van der Mark)

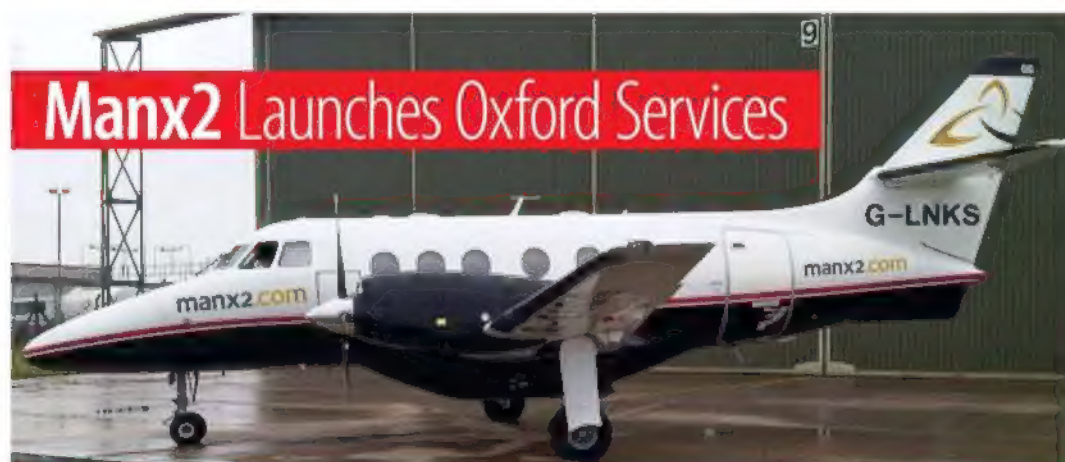
## Temporary Closure for Air Alps

TROUBLED AUSTRIAN regional carrier Air Alps announced on February 1 that it had resumed operations with immediate effect following a change in management. The airline, which uses a fleet of three Dornier 328-100s across Northern Italy on behalf of Alitalia, had temporarily suspended services in late January after running into financial

difficulties. Shortly afterwards it confirmed that it had entered talks with Innsbruck-based Welcome Air over a potential takeover.

"The issues with the authorities and our partners have all been resolved. We have a green light for the continuation of operations on our main route of Bolzano to Rome from February 1," said

the carrier's new Managing Director, Oliver Ladurner. "I look forward to the challenge. We will look to strengthen our position with the owner and I would like to thank all of my colleagues and our suppliers for their commitment and confidence. I would also like to apologise to our customers for any inconvenience caused by the interruption."



## Manx2 Launches Oxford Services

ISLE-OF-MAN BASED Manx2 has announced plans to launch daily services from its Ronaldsway base to Jersey via London/Oxford from May 8. The new flights will be operated using a leased BAE Systems Jetstream 31.

"Since we launched Manx2 six years

ago, the feedback we get repeatedly from customers is that they love to use the smaller, easy-to-use regional airports," said Manx2.com Managing Director Dave Buck. "We are thus tremendously excited to be launching this new air route from the Isle of Man

to London/Oxford. Many people are getting frustrated by the queues, hassle and delays at the big hub airports. Our business is all about convenience, getting passengers where they want to be, with the minimum of fuss." (Photo Manx2)

## in brief

**EuroLOT** is to acquire eight Bombardier Dash 8-Q400NGs, and has options on a further 12. Deliveries are expected to have been completed by August 2012 with the first three examples due to join the carrier in April.

A poll commissioned by the **Institution of Mechanical Engineers** found that 25% of the general public would prefer a third runway at **London/Heathrow** against a new airport in the Thames Estuary. However, 35% backed the decision to block any expansion at Heathrow.

**Alitalia** has reached a tentative agreement to merge with charter operator Blue Panorama and no-frills airline Wind Jet as it moves to consolidate the domestic and international air transport sector.

The **UK Civil Aviation Authority** has signed up to the Ordnance Survey's Public Sector Mapping Agreement in an effort to monitor aircraft noise.

**West Atlantic Airlines**, Europe's largest regional cargo operator, has signed a three-year support contract with BAE Systems for its fleet of 44 ATP turboprop aircraft.

**Austrian Airlines** has announced that it will resume flights to Libya from March 25. The five-times weekly service between Vienna and Tripoli was suspended due to political unrest in early 2011.

**Bristow Helicopters** has been awarded a four-year contract to provide Search and Rescue services to northern Scotland. The operator will base Sikorsky S-92s at Sumburgh and Stornoway from June 2013.

Low-cost carrier **easyJet** celebrated 10 years of operations at London/Gatwick in late February. The airline is the largest operator here, serving 94 destinations with 50 based aircraft. (Photo easyJet)



**Airstream International** has completed the sale of former InterSky Bombardier Dash 8-Q300, OE-LIE (c/n 546), to AeroCentury Corporation. The aircraft is expected to join Maldivian carrier Island Aviation Services.

**Reuben Brothers** has completed the acquisition of The London Heliport. The group also owns London/Oxford airport.

**Air France** has confirmed that it has reduced its fuel consumption by 4% since 2007 under an ongoing energy efficiency programme. The carrier has also lowered its CO<sub>2</sub> emissions by 27% on overseas routes.



# Transavia Dons its Bikini

Transavia has applied these eye-catching decals to its Boeing 737-7K2, PH-XRA (c/n 30784). The aircraft is promoting the European Beach Volleyball tournament, which will be held in the Netherlands in May. (Michael Prophet)



## BAA Loses Stansted Appeal

BAA HAS lost its appeal against the sale of London/Stansted Airport. In the original ruling made in March 2009, the Competition Commission found that the company held a dominant position in the UK and ordered it to sell off the airports at Gatwick, Stansted and one of either Glasgow or Edinburgh (see *Airliner World*, September 2011, pg6). In the latest tribunal, Spanish-owned BAA argued that its ownership of Heathrow and Stansted was not anti-competitive

on the basis that the two facilities served vastly different markets. It added that it would not be economically viable to sell the airport in the current financial climate but the case was dismissed by the UK Competition Appeal Tribunal on February 1. BAA, which completed the sale of Gatwick in 2009 and has recently agreed to sell Edinburgh, said it was "disappointed" by the decision and was considering its position.

## Virgin Investment Continues

BRITISH CARRIER Virgin Atlantic has announced that it will recruit 500 cabin crew as part of an ongoing expansion programme. The airline is launching services to Vancouver and Cancun in May and June respectively and is expecting to take delivery of seven new Airbus A330-300 wide-body, twin jet aircraft this year as part of a \$2.2 billion aircraft investment programme.

This follows news that Virgin is investing £100 million into its Business Class product as it looks to increase its market share in the sector. Changes include a new Upper Class cabin which will include revised seating, a bar and the introduction of 'fine dining' onboard its fleet. The revised cabin will be launched on its new A330s due for delivery this spring.

## All Go at Heathrow

BAA, OWNER of London/Heathrow Airport, is eyeing a significant improvement in the passenger experience when it officially opens the new Terminal 2 in 2014. The project is the latest stage in a five-year, £4.8 billion transformation of the airport which began after the opening of the Terminal 5 in 2008. The new facility will house the Star Alliance

group of airlines and is expected to serve 20 million passengers per year. Terminal 2 is currently the largest, privately funded construction project in the UK and once completed, the £2.5 billion facility will feature 28 aircraft stands, 60 self-service kiosks and 56 check-in desks. Meanwhile, noise complaints at Heathrow rose more than six-fold during

the recent mixed-mode trial. Designed to allow greater flexibility as to when the airport's two runways are used for simultaneous arrivals and departures (see *Airliner World*, September Issue, pg8), the trial attracted 480 complaints during its first month, compared to just 75 during the same period in 2010. (Photo BAA)



## Ryanair Eyes Hungarian Expansion

IRISH LOW-COST carrier Ryanair has announced plans to launch 32 new routes from Budapest. The move comes just weeks after the Hungarian national carrier Malev ceased operations.

The no-frills airline introduced new services to an initial six destinations (Barcelona, Dublin, Karlsruhe, London/Stansted, Madrid and Stockholm) on February 17, with another 26 routes expected to be added within the next few months.

"Welcoming Ryanair back to our airport was always on the agenda and while they initially announced five routes for commencement in March, this has now been increased to 32 in total," commented Budapest Airport CEO Jost Lammers. "Operating from Terminal 2 and paying the same charges as all of the other airlines using the facility, there is now more competition in this market, affording more convenience and choice for travellers. We look forward to Ryanair's long and continuous operations from our airport."



## Swedish Freighter

Currently operating between Växjö and Stockholm/Bromma is Swedish airline consortium Sverigeflyg's new BAE Systems ATP, SE-LLO (c/n 2023). The group's constituent carriers are listed on the forward fuselage. (Niklas Arin)



## New Airline Set to Wow Iceland

WOW AIR, the new Icelandic low-cost carrier, has announced that it is to commence operations in June 2012. The airline, founded in 2011, will use a pair of 168-seat Airbus A320s leased from Avion Express to launch services to twelve destinations across

Europe including London/Stansted, Copenhagen, Berlin and Paris.

"We are aware that it is a brave move to launch a new airline in the present economic climate but have spotted an obvious gap in the market for low-cost flight options from Iceland to a number

of European cities," said WOW Air CEO Baldur Baldursson. "We have extensive experience in the Icelandic tourism market and have ambitious plans for the airline, including an increase in frequency to London in the spring of 2013."

## Eastern Launches New Charter Service



HUMBERSIDE-BASED Eastern Airways has introduced its new charter product aimed at corporate customers, blue chip companies, sports teams, the music industry and private individuals.

"We have significantly grown our charter business over the last two years and the launch of our new charter product further demonstrates our attention to detail and customised levels of service to meet the requirements of our clients. The bespoke

charter services we offer will appeal to a whole host of existing and potential customers," Eastern Airways' Commercial Director Kay Ryan remarked. The carrier, which celebrates its 15th anniversary later this year, has launched a range of charter services, including Gold, Silver and Platinum, and a new uniform has been introduced for cabin crew operating on these charters. (Photo Eastern Airways)

## IAG Edges Closer to JAL Deal

INTERNATIONAL AIRLINES Group (IAG) has agreed plans for a new joint business between wholly-owned British Airways and Japan Airlines (JAL) on services between Europe and Japan. The tie-up would benefit passengers by providing better links and a greater choice of flights while potentially allowing both operators to launch new routes. IAG added that the revenue-sharing agreement would also strengthen the oneworld alliance, of which both carriers are members, and enable it to compete more effectively against other global alliances. "British Airways has a long history of flying to Japan and linking the world's third largest economy to the UK and Europe" commented IAG Chief Executive Willie Walsh. "We have very close links with JAL and look forward to enhancing that relationship further."

## in brief

Channel Islands-based **Blue Island** has confirmed plans to launch a weekly summer service between Jersey and Cambridge using a 48-seat ATR 42.

Spanish carrier **Air Nostrum** celebrated the delivery of its tenth CRJ1000 NextGen on February 3. The Regional Jet is the carrier's 75th Bombardier commercial aircraft.

Lithuanian Authorities are reportedly planning on launching a new national carrier under the name of **airLituania**. The country has been without a locally based airline since the demise of flyLAL (Lithuanian Airlines) in January 2009.

International Airlines Group-owned **Iberia** is to relocate its London/Heathrow operations from Terminal 4 to Terminal 5 in order to improve connections with its partner carrier British Airways.

Leeds Bradford-based **Jet2** marked this leap year with an unusual 'Daring Darlings' competition. Ladies who proposed to their spouses aboard any Jet2 flight on February 29 (a British tradition) were entered into a prize draw with the lucky couple winning a free luxury honeymoon. (Photo Jet2)



New business charter operator **Fly Vectra** has launched operations from London/Oxford Airport. The company, which will operate two Cessna Citations by the end of 2012, received its Air Operator's Certificate in early February.

**Vueling** has confirmed plans to launch new domestic and international services following the recent demise of rival carrier Spanair. The airline will double its presence at Barcelona/El Prat while expanding its network by 25%.

**Peel Airports** has completed the sale of its majority shareholding in Durham Tees Valley Airport to Peel Investments (DVTI).

Faroe Islands carrier **Atlantic Airways** has won a tender with the Norwegian company, Statoil, to provide helicopter support services for oil exploration. The airline will use an AgustaWestland AW139 to operate the £2.25 million contract.

**Pegasus** announced that it had become the fifth largest low-cost carrier in Europe after it carried 11.3 million passengers during 2011, up 32.2% against 2010.

## LOT Adds Second Retrojet



Czech carrier CSA has applied a 1960s-vintage livery to Boeing 737-55S, OK-XGC (c/n 26541). The aircraft is the airline's second to wear a retro colourscheme. (Jan Jurek)



# SAS Right on Time



SCANDINAVIAN AIRLINES has been named as the most punctual carrier in Europe for the third consecutive year by FlightStats. SAS operated 239,320 flights during 2011 and improved on the previous year with an on-time performance of 88.22%.

FlightStats, owned by Conductive Technology and based in Portland, US, specialises in the collection and distribution of flight data and statistics. The award was presented to SAS by CEO Jeff Kennedy, with the Scandinavian carrier finishing ahead of Finnair, KLM, LOT and Ryanair in the European category.

SAS CEO Rickard Gustafson explained that the award was more than just a publicity stunt for the airline and that good punctuality was now "a fundamental part of its operations."

The carrier, which was placed third behind All Nippon Airways and Japan Airlines in the world category, says it has enjoyed an excellent year with passenger figures having increased to over 27 million, up two million over 2010.

SAS Chief Operating Officer Flemming Jensen highlighted how, for a carrier which operates so many connections across its network, "bad punctuality can be expensive." He added that while processes are being constantly refined to improve the airline's performance, the mindset of its staff is a key factor. To this end, the carrier has selected one of its pilots, Per Schröder to be 'On-Time General' to promote this message.

Schröder is enthusiastic about the initiative, but explained that scepticism among the staff had been one of the largest hurdles, an obstacle which appears to have been overcome with many employees proudly wearing an 'on-time agent' badge. Schröder, who continues to fly for SAS despite his important role, was particularly proud that the idea had been conceived in-house and claims that the cost of the initiative was "his salary, 40 Danish pastries (used to convince some reluctant ground crew) and a lot of pin badges."

Scandinavian has attributed its success,

in part at least, to better planning, with schedules being adjusted to cater for different aircraft types – this presents a significant problem for SAS, which operates a mix of Airbus A320s, Boeing 737s, Bombardier CRJ700s and McDonnell Douglas MD-80s from its three bases at Copenhagen, Oslo and Stockholm. Consolidation of this complex fleet structure is now under way and is expected to deliver an estimated saving of 200-300 million SEK (£19-28.5 million). SAS plans to have retired its remaining MD-80 fleet within 18 months, replacing the type with new and leased A320s and 737s. The carrier is expecting the first of 30 A320neos in 2016, but despite its reliance on the current 737NG family, Gustafson confirmed that an order for the new 737 MAX "had not been considered."

## All Change

Speaking with *Airliner World*, Mr Gustafson outlined some of the carrier's plans for the immediate future. Rising fuel prices and the current economic climate have led SAS to bring forward its cost-cutting programme, with administrative costs expected to be reduced by 15-20% over the next two years. A renegotiated pensions deal for its staff should also save the airline 1 billion SEK (£95.3 million).

The contentious EU Emissions Trading Scheme could cost the carrier 100 million SEK (£9.6 million) this year, and while Gustafson expressed his support for such an initiative (SAS is keen to promote its green credentials), he spoke critically of a scheme that "puts European carriers at a competitive disadvantage."

Scandinavian's cash flow took a further hit recently following the collapse of Spanair, of which SAS owned a 10% share. "Our stake in the airline was writ-



SAS has announced that it will increase its presence at airports across its network using bold new branding. The first airport to be updated will be Malmö in Sweden. (Scandinavian Airlines)

ten down to zero in 2010," Gustafson explained. "The main hit for us came from an outstanding loan of €149 million. Cash flow is expected to be reduced by around 200 million SEK (£19 million)." He added that a code-share agreement between the two operators had been terminated last year.

Faced with mounting competition from low-cost carrier Norwegian, Gustafson said that SAS was defending its position in the region well, and while there had been a decrease in its market position, the airline was growing its profitability. Interestingly, the carrier has begun installing Wi-Fi on its short-haul fleet (a feature rolled out by Norwegian last year) with the first example, an Oslo-based 737, now in service. The technology, which will be fitted on ten aircraft by mid-2012, allows passengers to use text, email and internet services, and while telephony is available as an option, the airline is unclear as to whether this facility will be offered to customers.

Top • The Airbus A320 family is a key part of the SAS fleet. (Airteamimages.com/Danijel Jovanovic)

From left to right, SAS Chief Operating Officer Flemming Jensen and CEO Rickard Gustafson receive the FlightStats Award from Conductive Technology CEO Jeff Kennedy. (Key – Craig West)







# MC-21 FAMILY MORE COMFORT LESS COST

- 12-15% operational cost reduction in comparison with existing analogues
- innovative airframe design solutions
- optimal fuselage cross-section increasing the comfort level and reducing the turnaround time
- cooperation with the world leading suppliers of systems and equipment
- eco-minded solutions
- extended operational capabilities



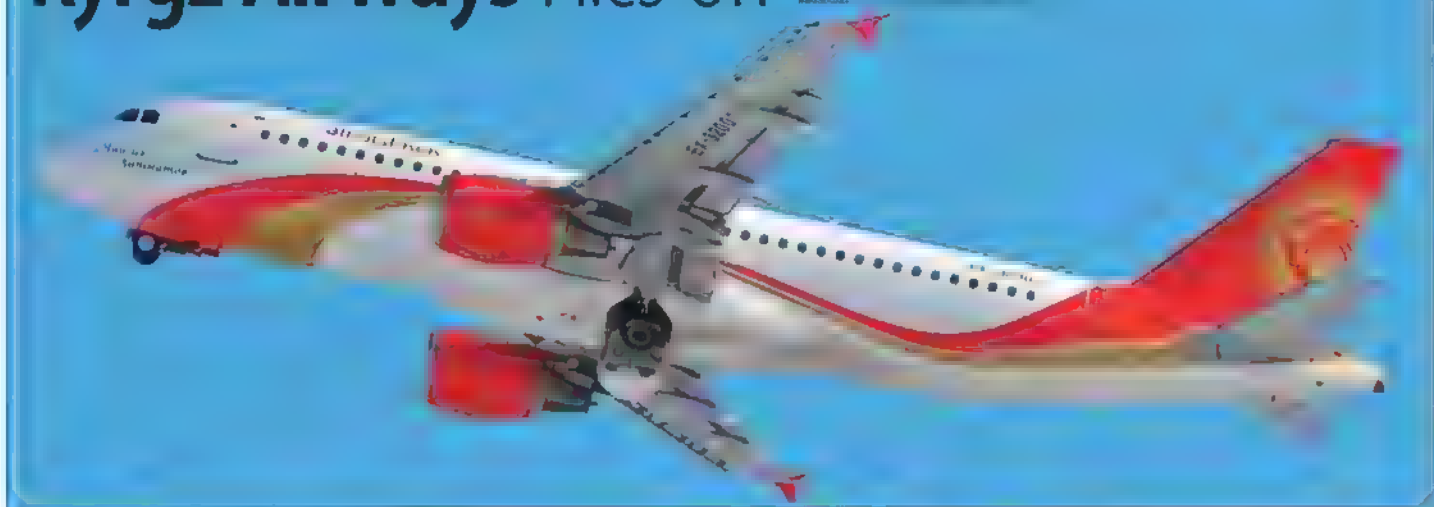
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# Kyrgyz Airways Flies On

This rare Airbus A320-212, EX-32001 (c/n 445), is operated by Kyrgyz Airways but carries Air Bishkek titles. The airline is one of several currently banned from operating into Russia.



## Irkut to Lead With -300 Series

RUSSIAN MANUFACTURER Irkut has confirmed that the MC-21 will be produced initially in the 180-seat, -300 series form. In an announcement at the recent Singapore Airshow, it added that contracts had been agreed with Pratt & Whitney, Rockwell Collins, Eaton, Goodrich, Hamilton Sundstrand and Zodiac Aerospace while further negotiations were ongoing.

The decision to lead with the MC-21-300

was, according to the manufacturer, based on demand from its existing customers, Aeroflot and Ilyushin Finance. Irkut, which has signed a marketing and after-sales support cooperation agreement with Lufthansa Consulting, claims that its narrow-body jetliner will offer fuel savings of 23% when compared to its main competitors. Design of the aircraft is expected to be finalised by mid-2012 with the first flight planned for 2014.

## BA Flight Upgrade on Hold?

BRITISH AIRWAYS (BA) has reportedly reached an impasse with the Russian Civil Aviation Authorities, after announcing plans to upgrade its London/Heathrow to Moscow/Domodedovo service. Currently operated by Airbus A320s and Boeing 767s, the carrier disclosed in September 2011 that it had begun negotiations over the use of larger 747s and 777s on the route – the current bilateral agreement

between Russia and the UK requires coordination over the frequency and type of aircraft on all services between the two countries. However, reports in the Russian press have suggested that the carrier has failed to secure approval to upgrade its flights to Moscow. This is believed to be linked to a refusal by the UK authorities to grant a similar request from Aeroflot and Transaero.

## Gimme Shelter



TENSILE ENGINEERING firm Architen Landrell has completed the installation of a new canopy at Yerevan's Zvartnots Airport, Armenia. The 64,583sq ft (6,000m<sup>2</sup>) exterior canopy, which is made out of PTFE polythene-coated fabric, is designed to provide shelter from the country's extreme weather and was attached to the new terminal building as part of a regeneration project led by Argentinean architectural company Corporation America.

Architen Landrell, which was also contracted to install light diffusing fabric baffles inside the facility, designed, engineered and pre-fabricated the structures at its factory in the UK before transporting them by road across Europe. Lance Rowell, Director at Architen Landrell, said that he was "very pleased to have been involved with such an eminent project and build such a good working relationship with its team." (Photo Architen Landrell)



## Aeroflot to Replace Superjets

RUSSIAN NATIONAL carrier Aeroflot has confirmed plans to replace its recently delivered Sukhoi Superjet 100s with new, customised variants. The airline, which recently took delivery of its fifth example, RA-89007 (c/n 95015), was due to receive ten aircraft last year under the original delivery schedule. However, setbacks with the manufacturer's supply chain led to delays and the carrier chose to accept a simplified, interim version of the regional jet. "Aeroflot has placed an order for the

aircraft with different amenities and cabin configuration. Regrettably, our suppliers were not ready to put up all the necessary equipment as specified," remarked Sukhoi Civil Aircraft Vice President for Customer Relations, Igor Syrtsov. However, he added that the manufacturer had committed to delivering improved variants, which full meet Aeroflot's specifications. It is expected that the airline will return its initial examples to the manufacturer for modification and resale.



## 717 Goes Stateside

Turkmenistan Airlines Boeing 717-400

February. The jets were en route to Marana, Arizona where they are expected to be placed into storage.

## ABC Receives New Freighter

RUSSIAN CARRIER AirBridge Cargo (ABC) took delivery of its first Boeing 747-8F on January 26. The initial example, VQ-BLQ (c/n 37581), is one of an eventual five aircraft, with the next two expected in March and September respectively. The airline also retains options to purchase a further five of the type.

"The introduction of the 747-8F represents a huge commitment to our customers since we are investing in state-of-the-art equipment to further expand

our network," ABC's Executive President Tatyana Arslanova commented. "We have a firm belief that our established and new customers will greatly benefit from the additional features the aircraft will provide such as enhanced payload. With the introduction of the 747-8F, we'll have the youngest freighter fleet in the industry while maintaining the highest standards of environmental compliance." Boeing Commercial Airplanes Vice President of Sales Russia, Central Asia and

Middle East, Marty Bentrott, added: "ABC is a valued customer that has built a very successful cargo business with the help of eleven 747 Freighters and we're confident it will maintain its impressive rate of growth, supported by its new fleet." The fuel-efficient, General Electric GEnx-2B-powered freighter, which is 18ft 4in (5.6m) longer than the -400 series it replaces, can carry four additional cargo pallets on the main deck, and three more in the lower hold.

## More Orders for Superjet

TRANSAERO, RUSSIA'S second largest carrier, has placed an estimated \$200 million order with Sukhoi for six Superjet 100 regional aircraft. The latest in a string of recent acquisitions by the airline, which have included multi-billion dollar

orders with both Airbus and Boeing, the SSJ100s are expected to be operated on Transaero's short-haul services.

"This purchase is in response to the growing demand for regional flights in Russia," Transaero's Deputy Director

General Dmitry Stolyarov commented, adding that the aircraft are planned to operate from the carrier's hubs at St Petersburg and Khabarovsk. Delivery of the first example is due in the fourth quarter of 2015.

## E-Jets for Belavia



BELARUSIAN CARRIER Belavia has placed an order for a pair of Embraer E175s as part of a recently launched fleet renewal programme. The two narrow-body aircraft will be fitted in a 76-seat configuration, consisting of 12 in Business Class and 64 in Economy. "This is another excellent example of an airline which has embraced the E-Jets philosophy of fleet right-sizing," said Embraer President, Commercial Aviation Paulo Cesar de Souza e Silva.

"It joins a growing list of customers in Eastern Europe who have discovered the enormous potential of the aircraft to add capacity that is ideally suited to markets in that region without downgrading the service level they offer in their narrow-bodies."

Belavia Director General Anatoly Gusarov added: "We have taken a strategic decision to phase out our old fleet and opt for a new aircraft to complement our narrow-body jets."

"The E175 perfectly suits our growth strategy to test new routes where it would be uneconomical to operate larger aircraft."

Belavia becomes the latest E-Jet operator in the region behind Aerosvit, Air Astana, Air Moldova, Bulgaria Air, Montenegro Airlines and Wind Rose Aviation. The jets will be leased from US-based Air Lease Corporation with delivery of the first example expected in September 2012. (Photo Embraer)

### in brief

Azerbaijan Airlines has confirmed that it will take delivery of three Boeing 767s during 2012, consisting of one passenger-configured example and two freighters. The first is expected to join the carrier in June.

Russian national airline Aeroflot carried 14.2 million passengers in 2011, an increase of 25.6% against the previous year. Both international and domestic traffic rose significantly while the average load factor for the period was up to 77.5%.

US manufacturer Boeing has delivered the first of four 767-33PERS to Uzbekistan Airways. The aircraft were part of an order, which also includes two 787 Dreamliners, placed by the carrier in 2008. (Photo Boeing)



Russian carrier Utair has agreed a \$100 million, five-year deal with Sberbank Leasing Co for the acquisition of seven Boeing 737s, consisting of two -800 series and five -500s.

Luhansk Airport, located in eastern Ukraine, has launched a UAH 52 million (£4.1 million) programme to refurbish its main runway.

Aeroflot-owned regional carrier Vladivostok Avia relocated its Moscow operations from Vnukovo to Sheremetyevo on February 1.

The Russian Ministry of Transport has completed the certification of FL Technics Jets, allowing the Lithuanian MRO to undertake line and base maintenance work on Russian-registered business aircraft.

Vladivostok Airport is expecting to have its open skies status approved in June, paving the way for new carriers to launch services to Russia's Far East without the bilateral agreements currently required.

Krasnodar-based Kuban Airlines has confirmed that it carried 900,000 passengers during 2011, an increase of 35% for 2001 against the previous year. Average load factors for the period rose by 17.8% to 72%.

Yemelyanova Airport, located in Krasnoyarsk, Russia, has selected Lufthansa Consulting to help it attract new carriers and expand its route network. The facility is currently served by 30 operators and handled 1.6 million passengers in 2011.

Transaero has introduced four-times weekly services between Moscow/Domodedovo and Yerevan in Armenia.



## Transaero Targets Vnukovo Expansion

RUSSIAN CARRIER Transaero Airlines has agreed a strategic cooperation with Moscow/Vnukovo Airport. Under the memorandum, signed on February 23, the two will become partners with the aim of developing the civil aviation market – the carrier will work with the facility on areas such as the handling of passengers, luggage, air mail and cargo.

The ten-year agreement comes as Transaero prepares for its May 2012 launch of domestic and international services from the airport, with the facility expecting to generate up to 2 million extra passengers per year.

"We have signed a very important agreement, which opens new prospects for the development of our airline in Moscow. I highly appreciate the aspiration of Vnukovo Airport to provide us with the most advanced and innovative services and I'm confident that this strategic cooperation will be a success," commented Transaero Airlines General Director Olga Pleshakova.

The partnership is expected to deliver several long-term benefits with Vnukovo having committed to upgrading four aircraft stands to handle to the Airbus A380 and Boeing 747-81 – Transaero has four examples of each type on order. The carrier will establish an MRO at the airport and plans to build a new hangar. A new, 32,300sq ft (3,000m<sup>2</sup>) training facility is also expected to be added.

## Silk Way Lands DoD Contract



GLOBAL AVIATION Holdings, the parent company of World Airways, has reached an agreement with Silk Way Airlines to provide air freight and outsized cargo services to the US Military. For the US airline, which has operated contracts on behalf of the Department of Defense (DoD) since 1955, the deal will complement

its own operations with the Azerbaijani carrier specialised in transporting heavy industrial equipment, materials for construction and vehicles plus equipment for the oil and gas industry. Significantly, Silk Way, which operates a fleet of Antonov AN-12s, Boeing 747s and Ilyushin Il-76s, flies into both Afghanistan and Iraq.

"Way's experience and expertise in handling outsized cargo, especially to non-traditional destinations, is a great addition to our military support programme," said Global CEO Rob Hanns. "We are pleased to be teaming with them for this critical cargo service." (Photo: Phil Woods)

## Expansion for Air Astana

KAZAKHSTAN CARRIER Air Astana has announced an order with US manufacturer Boeing for four 767-300ERs and three 787 Dreamliners. The airline confirmed that the new 767s will replace two currently leased examples, while its fleet of smaller 757s will also be phased out. Air Astana President, Peter Foster added that the carrier's Dreamliners will be used to launch services to destinations in Africa, Australasia and the US.

Air Astana Chairman Nurzhan Baidaliev stated that the introduction of the Dreamliner "will place the carrier amongst the leading airlines of the world in terms of operating the highest quality, environmentally friendly air services." He also stressed that in keeping with its history of financial self-sufficiency, the airline would not require state or shareholder funds for the purchases, but "will fund the new aircraft through a combination

of its own cash and financial instruments through the air finance market."

Worth an estimated \$1.3 billion, deliveries of the winglet-equipped 767s are expected between 2013 and 2014, while the first Dreamliner will join the carrier in 2017.

The carrier has confirmed plans to launch new services to Ulaanbaatar in Mongolia, Uzbek capital Tashkent and the Russian city of Kazan during spring 2012.

## ATRs Head Off-Road

RUSSIA'S INTERSTATE AVIATION Committee (IAC) has approved the operation of ATR 42 and 72 turbo-props from non-tarmac runways. Both UTair and NordStar fly the types to airfields across Northern Russia and Siberia. According to the IAC, around 38% of the country's 332 airports have non-Tarmac runways.

## Euro Freighter



## 20th 737 for Ukraine

Ukraine International Airlines has added a 20th Boeing 737, UR-GBA (c/n 28670) to its fleet. The aircraft, a series 300 fitted with winglets, was formerly operated by Brussels Airlines. (Ukraine International Airlines/Uling Vokrov)



## Red Wings to Dagestan?

MOSCOW BASED charter carrier Red Wings has announced that it is considering opening a new base at Makhachkala in the Republic of Dagestan. This follows news that the airline, which carried 900,000 passengers last year, was estimating a full-year loss of \$22.2 million for 2011, due in part to the political unrest in Egypt. Red Wings has confirmed its intention to launch twice-daily services to Moscow, along with routes to several international destinations. The carrier hopes to fill the void left following the demise of locally based Dagestan Airlines in late 2011.



# MC-21

## Progress Report

Russia has always been a leader in combat aircraft design and production; its products form the backbone of more than 50 national air forces worldwide. The MC-21 jet airliner – which is Russian for 'long-range airliner of the 21st Century' – is now in development with high hopes it will corner a large share of the future market in 150 to 212 single-aisle commercial jets.

The MC-21 is an ambitious program that Russia hopes will mark its successful return to the international commercial airliner market. Program prime contractor and MC-21 designer is the Irkut Corporation and the jet will be assembled in the city of Irkutsk, alongside the production of Su-30MKI fighters and Yak-130 combat trainers. The MC-21 family of airliners will have capacity for 150 to 212 passengers, flying at ranges up to 2,970nm (5,500km). The new jet will enable airlines to cut direct operational costs by 12 to 15%. The project aims to



public debut at the 2010 Farnborough International Airshow and generated strong interest from airlines. Sales of the MC-21 have reached a total of 235 for both the MC-21-200 and MC-21-300 variants, including a firm order for 50 aircraft from Russian national carrier, Aeroflot. The maiden flight of the MC-21 is scheduled for 2014, with the certification of the basic version to be completed in 2016 and deliveries to customers starting in 2017. According to Irkut's market forecast there is a requirement for more than 1,000 MC-21s, with western partners agreeing with the assessment. The stable financial and economic position of the

Irkut Corporation, the active support of the Russian Government and the program's international partners will lead to the development of a successful product.

Irkut Corporation's strong participation at the Indian Aviation exhibition in Hyderabad (March 14-18) includes a full-sized MC-21 mock-up. Alexey Fedorov, Irkut Corporation's President said; "India is the strategic partner of Russia. Irkut has this definition as the principle of its collaboration with our Indian partners. Understandably, we are keen to augment our collaboration with Indian high-tech companies within the MC-21 program."

bring together specialist companies in engine and avionics systems into one team. It will be the first aircraft with a capacity of more than 150 passengers to use Pratt & Whitney's brand-new PW1400G geared turbojet engines. Other project sub-contractors include: Rockwell Collins, Hamilton Sundstrand, Honeywell, THALES, Eaton and the French Zodiac Group, as well as many renowned Russian enterprises such as Aerokompozit, Aviastar-SP and others. The MC-21's airframe and wing construction will employ large-scale use of composite materials which will provide almost half of the predicted

23% savings in fuel consumption when compared with current generation jets. But the jet's state-of-the-art design is not just for the operator's benefit – it promises excellent passenger comfort too. The large diameter fuselage gives passengers an extra 30% of space, with wider seats and bigger luggage bins, making it the world's first single-aisled aircraft with long-range comfort. The MC-21 has impressive environmentally friendly credentials too, reducing NOx and CO<sub>2</sub> emissions by 50% and 20% respectively compared to current generation jets.

A full-sized MC-21 mock-up made its







Making a rare crossing of the Atlantic, Yemenia (Yemen Airways/Government) Boeing 747SP-27, 70-YMN (c/n 21706) was a February visitor to Boston Logan Airport, arriving from Los Angeles.

## Profits at Etihad

PRESIDENT AND CEO James Hogan said it was an "historic day" for Etihad Airways as the carrier reported its first-ever profit – reporting a full year earnings before interest and taxes (EBIT) of \$137 million with revenues up to \$4.1 billion. "This is an amazing achievement for an

airline just eight years old," he said. "Five years ago we said we would be profitable by 2011. Despite the global financial crisis, continued high oil prices, regional instability and natural disasters, we have delivered. "And we will aim for strong growth again in 2012, in spite of the tough global eco-

nomie environment, with a passenger traffic target of 10 million and a corresponding increase in profits."

The carrier also announced its first equity investment in another carrier – Germany's Air Berlin – in December 2011. "This was a game changing move for us, adding

157 destinations and giving us access to 35 million new passengers," he added. "The deal will be our most important catalyst for growth in 2012. It has given us instant access to Europe's largest travel market and will have a major impact on revenues in 2012."

## Tanzanian Airport Upgrade

TRANSPORT LINKS to remote area of western Tanzania will be improved following an airport upgrade and expansion programme funded by the European Investment Bank. Kigoma, Bukoba, Tabora, Shinyanga and Sumbawanga, are among airports that will be upgraded to international safety standards. It will provide all weather operations and expand to cater for projected growth.

Improvement of the five regional airports is one of the main priorities of the Government's ten year transport investment programme and will enhance the country's limited air transport infrastructure seen as a significant obstacle to economic growth. Upgrades will include all-weather asphalt runways at airports that currently cannot operate in the rainy season due to gravel or grass runways.



## Air Namibia Adds A319s



the carrier's acting CEO Theo M Namases. "The efficiency of our new aircraft, and commonality with our existing fleet will provide a strong basis for continued growth and contribution to the Namibian tourist industry." (Photo Airbus)

international route between Windhoek and Frankfurt, Germany. "Our in-service experience with Airbus aircraft has confirmed the A319 is the ideal aircraft for our regional routes," said

the carrier's acting CEO Theo M Namases. "The efficiency of our new aircraft, and commonality with our existing fleet will provide a strong basis for continued growth and contribution to the Namibian tourist industry." (Photo Airbus)

## Korongo to Start in April?

LUBUMBASHI BASED Korongo Airlines (ZC), which is majority owned (70%) by SN Holding – the parent company of Brussels Airlines – is planning to begin operations in the Congo in April. Korongo's Chairman George Arthur Forrest stated that the carrier had received all the necessary licences and certificates from the Congolese authorities "allowing the effective start of the airline."

It will then import two BAe 146-200s and one Boeing 737-300 from Brussels Airlines to launch domestic and international operations.

All three aircraft have been painted in Korongo's livery and will be wet-leased under an ACMI agreement, maintaining their Belgian registrations.



## New Premium Lounge at Heathrow

QATAR AIRWAYS has opened its new Premium Lounge in Terminal 4 at London/Heathrow. It is the airline's first dedicated facility for First and Business Class passengers outside its Doha hub. The opening is in preparation for the planned increase in capacity on the Heathrow – Doha route – from four to five flights a day from March 25. Designed to resemble a boutique hotel

or private member's club rather than a conventional airport lounge, the new lounge has been created to provide the ultimate in luxury and five-star service. It includes a global brasserie kitchen, delicatessen, signature Martini bar and private shower facilities – with heated floors and mirrors, hotel-style towels and luxury brand toiletries and other amenities. (Photo Qatar Airways)



## The End For Air Zim?

DESPITE REPORTEDLY restarting domestic flights in February, Air Zimbabwe has ceased operations. "I can confirm all flights are suspended. We are grounded indefinitely," its CEO Innocent Mavhunga said in a statement to the press. A Boeing 767 had been impounded at London/Gatwick at the end of 2011 over an alleged \$1.2 million debt dispute with a US spares company. The carrier had also suspended flights to neighbouring South Africa because of another alleged debt of \$500,000 in case other creditors impounded more of its aircraft.

## New Uniforms For kulula

AFTER TEN years of operations, South African low-cost carrier, kulula has launched a new range of uniforms created by local designer, Craig Port. The new look will also be worn by the Comair ground staff at all the airports that kulula and its sister company British Airways serves. Nadine Damen, the carrier's marketing manager, said: "We turned ten last year and with this comes a wiser, wittier and smarter approach to flying the high skies. So, like any stylish fashionista worth her stilettos, we gave our much-loved crew a designer makeover that enhances our best assets beautifully."

## Losses For Comair

OPERATING COSTS at Comair of South Africa have risen by 24% to Rand 2,008-billion (£165.8 million) following an increase of more than 40% on average fuel prices compared to the same period last year.

Despite growing its revenue by 17% (as a result of higher fleet utilisation and use of the larger Boeing 737-800) in the last six months of 2011, the figures show an overall loss for the company.

"We are focused on dramatically re-engineering the airline business," said CEO, Erik Venter. "Airlines that do not substantially reinvent themselves are unlikely to survive in this challenging environment as demonstrated by the failure of a number of global airlines such as Spanair and Malev during the first weeks of 2012." He added that the company had embarked on several cost-saving projects such as setting up its own catering unit, which aims to reduce catering costs by 25%, and establishing a crew base in Cape Town to lower crew accommodation costs by 80%. (Via Mike Wright)

## Starbow Gains Two BAe 146s

AERO SURVEYS Limited, a Ghanaian regional carrier, operating under the commercial name 'Starbow' and based in the capital Accra, has acquired two additional BAe 146 regional jetliners for use on regional and domestic routes. The aircraft, one -300 and one -200 will double its fleet size to four and add additional capacity to satisfy increasing demand.

The carrier started domestic operations in Ghana on September 26, 2011 and it now serves the domestic centres of Kumasi with 16 flights a week, Tamale with seven and Takoradi with five.

## in brief

**Ethiopian Airlines** has placed a firm order for five Bombardier Dash 8-Q400 NextGens, worth \$160 million at official list prices – increasing the number of type purchased by the airline to 13. Two of the aircraft will be operated by Ethiopian and three by its affiliate, ASKY Airlines of Togo.

**Emirates SkyCargo** is expanding its North American operation following the launch of daily passenger services from Dubai to Dallas/Fort Worth and Seattle/Tacoma International airports. The freight carrier now connects to seven points in North America with trade links to more than 100 destinations worldwide. "Our daily, non-stop flights from the two new destinations will offer the fastest routes to the Middle East and beyond," said Ram Menen, Emirates' Divisional Senior Vice President Cargo.

Bahrain's national carrier **Gulf Air** is reducing operations, announcing the closure of its services to four destinations: Damascus, Athens, Milan and Kuala Lumpur. It follows the announcement of the closure of its Entebbe and Geneva routes earlier in February. The airline said the cuts were due to a drop in demand because of local and regional political situations as well as high fuel costs that have placed greater pressure on financial margins.

**Aviation Lease And Finance Company (ALAFCO)**, the Kuwait-based international aircraft leasing company, has finalised a purchase order for 35 Airbus A320neo family aircraft, bringing its total backlog for the type to 85. It has also selected CFM International's advanced LEAP-1A engines to power the aircraft, which are scheduled for delivery between 2019 and 2021. The firm engine order is valued at approximately \$840 million at list price. (Photo Airbus)



**BAE Systems Regional Aircraft** has built on a reputation for excellence with its aircraft repair services by winning a contract from South African carrier SA Airlink for the major repair of an Avro RJ85. The work is required as a result of a landing gear in early November. The nose gear became stuck in the up position which necessitated a landing without the nose gear deployed.

Ras Al Khaimah's state carrier **RAK Airways** is planning to launch its first long-haul route in June with a four times weekly flight to Bangkok. RAK re-launched operations in 2010 with two routes to Jeddah, and Calicut, India, and has since focused on extending its route network across the region, Indian sub-continent and North Africa.

Katanga Express Dornier Do 32B-110, N338PH (c/n 3029) at Lanseria near Johannesburg, South Africa. The airline flies domestic services within the Democratic Republic of Congo, mainly to and from the rich mining area of Katanga. (Stuart Haigh)

## Rare Dornier





## Interjet Starts at MIA



THE INAUGURAL flight by low-cost carrier Interjet from Mexico City to Miami International Airport, Florida, on February 23 was welcomed by officials from the Miami-Dade Aviation Department, the Greater Miami Convention and Visitors Bureau and the airline, with other local

dignitaries and celebrities also in attendance. The aircraft also received a water cannon salute on its arrival. The service is Interjet's second US route, following the start of Mexico City-San Antonio services in December 2011. Flights will operate twice daily on week-

days and daily on Saturdays and Sundays. The airline serves 25 city pairs from its Mexico City main hub, seven domestic city pairs out of its Toluca hub, and three city pairs each out of its Guadalajara and Monterrey hubs. (Photo Miami International Airport)

## Mokulele Goes International

HONOLULU-BASED regional carrier Mokulele has received approval from the US Department of Transportation to fly to Chicago/Rockford International Airport from Honolulu, and then continuing to London/Stansted. According to airline spokesman Sean Alvarez, the flights will be conducted by Charter World Solutions, doing business as Mokulele Tours, with services due to start in April (Chicago) and May (London).

Mokulele, which currently flies Hawaii inter-island flights using four nine-passenger Cessna Caravan turboprops, plans to lease a Boeing 767-200ER from Air Transportation International (ATI).

## Porter Holidays

TORONTO-BASED regional carrier Porter Airlines is branching out into the holiday business via its parent Porter Holdings, which has registered Porter Escapes as a Canadian trademark. The plan is to market all-inclusive holiday packages that feature flights, hotels, car rentals, travel insurance and vacation services with travellers filling up empty seats. Porter Airlines, based at Billy Bishop Toronto City Airport, is aiming to gradually raise its average annual load factor from the current 63.9% to the high-60s or low-70s. "We don't need a 75% to 80% load factor, and I doubt that we'll ever be in that category," CEO Robert Deluce said in an interview.

The goal of Porter Escapes will be to fly leisure travellers on short-haul vacation packages during non-peak times, avoiding morning and afternoon rush hours on weekdays. (Via Dirk Sepper)

## ACSA to Operate Brazilian Airports

THE AIRPORTS Company South Africa (ACSA), together with its Brazilian joint-venture partner Invepar, has won a \$9.2 billion contract to upgrade and operate the busiest and most valuable of three Brazilian airports: Guarulhos, in São Paulo.

Some of the immediate tasks for the company include preparing detailed operational plans for the Pope's visit for World Youth Day in 2013, the 2014 FIFA World Cup and the 2016 Olympic Games, all to be held in the country. Brazil's Trunfo Participações and France's Egis Airport Operation won the concession to expand Viracopos Airport, while Brazil's Engevix and Argentina's Corporación America will run the new terminal in Brasília.

## Azul Purchases More E-Jets

Continuing its fleet expansion, Brazilian carrier Azul Linhas Aéreas has ordered 10 more Embraer E175 aircraft from the manufacturer. The airline, which currently operates 10 E175s, will receive the new aircraft by the end of 2013. The total fleet of E175s will reach 20, and the airline is currently operating 10 daily flights with more than 850 daily flights, and is responsible for nearly 10% of domestic passenger traffic.

## 300th Phenom Delivery

EMBRAER HAS recently delivered its 300th Phenom jet, capping off the latest series of milestones, which include the assembly and first flight of the initial aircraft from the company's year-old Melbourne facility in Florida, USA.

"With the delivery to a US customer of a Phenom 300 jet, the 300th delivery in the

Phenom line, we have achieved a true milestone," said Robert Knebel, Vice President Sales for North America, Embraer Executive Jets. "The success of the type can be seen in the diversity of our customers, which include private individuals, corporations, universities, fractional, charter, flying schools and motor racing executives."



It is completing at Boston Logan International Airport. In February, low-cost carrier JetBlue rolled out a new livery on its Airbus A320-232, N605JB (cn 2364), replacing the Boston Red Sox Devilfish livery. The aircraft was painted at Roswell, New Mexico, and had flown into Boston under the guise of darkness, preserving the element of surprise for the unveiling. (Tamas Kolos-Ladics)

## JetBlue Logojet



## Tiara Air Adds Boeing 737

The first Boeing 737 for Aruban carrier Tiara Air, 737-322, P4-TIE (c/n 24249), was painted at Opa Locka, Florida, prior to delivery. It is the former GOL PR-GLE and has been in storage since May 2010. (Photo: Tiara Air)



## Comeback For PEOPLExpress

TWENTY-FIVE years after the last flight of no-frills carrier PEOPLExpress, the airline plans to fly again this summer using Boeing 737s. Employees of the original operator have spearheaded the start of the new version based at Newport News, Virginia, with a hopeful hub at Newport News/Williamsburg International Airport. The compa-

ny's chief marketing officer, Christine DeZarn, and President, Michael Morisi, began putting together the business plan about a year ago and have brought both old and new PEOPLExpress employees in to help. "Flights will be going to underserved markets and destinations where no other airlines fly. What we found is

that there are a number of opportunities where there is significant demand," said DeZarn. "And we've done a lot of research of what lower pricing does to stimulate demand in those markets." The airline plans to focus initially on Florida, New England, the Great Lakes and Mid-Atlantic regions.



## High-Altitude Certification for Dash 8

The Dash 8 is a twin-engine turboprop aircraft. It is the most common aircraft in the world, with over 14,000 units produced. Air Canada is the largest operator of the Dash 8, with 100 aircraft in its fleet. The aircraft is used for a variety of routes, including high-altitude flights to destinations such as Denver, Colorado, and Salt Lake City, Utah.

The Dash 8 is a very reliable aircraft, with a long history of safe and efficient operation. It is also a very versatile aircraft, capable of operating in a wide range of environments. This makes it a popular choice for airlines operating in mountainous regions.

## St Vincent Airport Privatisation

THE DECISION as to whether the first international airport in St Vincent and the Grenadines will be state-run or privatised is expected to be made soon. Speaking during the Routes Americas conference in The Bahamas in February, Glen Beache, CEO of the St Vincents and the Grenadine's Tourism Authority, said the government was considering whether to put the operation of the new airport out to tender or to run it directly. On track to be completed by November 2013, the new Argyle Airport will have one terminal and will be capable of handling one million passengers per annum. In 2014, it will be capable of handling aircraft up to and including the size of a Boeing 747 and will replace the existing ET Joshua Airport and offer direct international jet service from the US, Canada and Europe.



## Air Jamaica Receives 757

Wings Aviation, the parent company of Air Guyana, leased this Boeing 757-230, N524AT (c/n 30233), in September 2011. It was ferried from Lasham, UK to Blytheville, Arkansas, in November for painting and has now appeared at Fort Lauderdale, Florida, in Air Jamaica colours in preparation for delivery and flights from Kingston to New York, Toronto and Guyana. (Nige Howarth)

## in brief

**Global Aviation Holdings**, the parent company of World Airways and North American Airlines, has announced that it has commenced financial restructuring through the voluntary filing of petitions to reorganise under Chapter 11 of the US Bankruptcy Code. During the restructuring, the company and its subsidiaries will continue to operate as normal, without interruption.

Flight operations of **PAWA Dominicana** and **Aserca** from and to Caracas, Venezuela, Curacao and Aruba, have been suspended. According to local news reports, both carriers allegedly owe millions of dollars in to fuel and service providers. Meanwhile Brazilian cargo carrier, **Variglog** also suspended flights on February 1, 2012. Its fleet of one Boeing 757 and two 737s are leased from ACG.

**Grupo Aeromexico** has posted a 2011 net profit of \$162.3 million – partly as a result of revenue gains from the demise of rival Mexicana in August 2010. The carrier's full-year traffic increased by 21% year on year and capacity grew by 20% producing a load factor of 78.4%. Including regional affiliate Aeromexico Connect, the fleet increased by four Embraer 190s, six Boeing 737s and one 767 in 2011.

Toronto's **Hamilton International Airport** has started 2012 on the right footing, with 2011 having resulted in an increase in passengers travelling during the summer and winter months. Passenger numbers grew by 4% in the winter as locals sought sunshine, and by as much as 5% during the summer period as families took annual holidays. Hamilton also benefitted from the introduction of successful new routes, additional airline partners commencing new operations at the airport and positive cargo figures. (Photo: Hamilton Airport)



**TAM Airlines** of Brazil, including its operations in Paraguay, has obtained the renewal of its IOSA (IATA Operational Safety Audit) registration until January 2014. The process involved different areas of both companies, which have met approximately 950 requirements related to safety.

**Bombardier** has received a firm order for two Q400 NextGen aircraft from Horizon Air. "Shifting to an all-Q400 fleet last year was a crucial element in our business plan," Horizon's President Glenn Johnson said. The Seattle-based carrier is a wholly owned subsidiary of Alaska Air Group.



# World Economic Forum 2012



This Georgian Airways Bombardier Challenger 850, 4L-GAA (c/n 8046), was one of the more unusual visitors to Zurich.



Boeing 767-321ER, 4K-AIO1 (c/n 40342), operated by the Government of Azerbaijan, was an eye-catching arrival at this year's WEF.



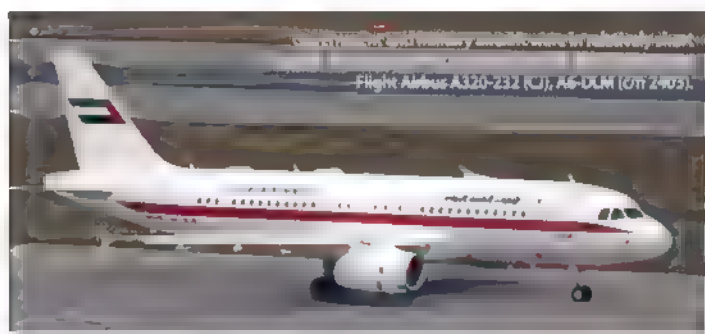
A regular WEF visitor is this National Air Services Airbus A330-300, VQ-COM (c/n 3530), operated on behalf of the Al Khor Group.



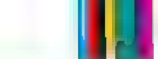
One of the more eye-catching colour schemes to grace Zurich was worn by Boeing 737-700 (BBJ), VP-BRT (c/n 32970).



The annual meeting of the World Economic Forum is held in late January in Davos, Switzerland. **Craig West** photographed some of the exotic airliners and business jets that visited Zurich Airport during the event.








## SIA's Boeing 747s Fly into Retirement

SINGAPORE AIRLINES (SIA) will operate special commemorative flights between Singapore and Hong Kong on April 6, 2012 to mark the retirement of the carrier's final Boeing 747-400 after nearly four decades of flying the type. SIA took delivery of its first 747-212B, 9V-SIA (c/n 20712) on July 31, 1973, and since then has acquired or leased more than 90 of the type, and was the world's largest operator of the -400 variant, with 51 examples at one time.

Speaking ahead of the final flight, SIA CEO, Goh Choon Phong said: "Saying farewell to the Queen of the Skies will not be easy. Over more than 38 years, the 747 has played an important role in helping SIA become the global airline that it is today. It enabled us to extend our network around the world and introduce innovative new products and services." (SIA)

## Indonesia's Wings Air to Become Largest ATR Operator

INDONESIA'S LION Air has signed a contract to purchase 27 additional ATR 72-600s in a deal valued at \$610 million at list prices. Once the additional ATRs have been delivered to Lion Air's regional subsidiary Wings Air, it will become the world's largest ATR operator, with a total fleet of 60 (20 ATR 72-500s and 40 ATR 72-600s). Wings Air introduced its first ATR airliner in January 2010 and currently has a fleet of 16 ATR 72-500s across its domestic network. It plans to receive its 60th example by the end of 2015.

## Jet Asia Airways Consolidates

BANGKOK SUVARNABHUMI International Airport-based Jet Asia Airways launched its first charter flights to Tokyo/Narita International Airport in early February. The carrier believes it has found a niche in the market for providing low-cost full-service flights to meet the increasing demand for both business and leisure travellers flying between the two countries. The airline says early indications show that load factors have been high and customer feedback has been very positive.

Jet Asia Airways was created in 2009 and specialises in block, full and ad hoc charters as well as wet-lease (ACMI) services. It operates a fleet of two Boeing 767-200s, HS-JAB (c/n 21868) and HS-JAD (c/n 23216). (It has two further examples in storage), each of which are configured with 12 Business Class and 211 Economy Class seats. Among other contracts the airline has recently undertaken are several Amiri Flight charters on behalf of the Qatari Government and a number of evacuation flights from Iraq.



## Cathay Pacific's New Premium Economy Product

HONG KONG-based Cathay Pacific Airways has taken delivery of its latest Boeing 777-300ER, featuring its all-new Premium Economy Class product and long-haul Economy Class seats. The aircraft, B-KPY (c/n 37899), the airline's 25th 777-300ER, arrived at its home base on February 26, coinciding with the delivery of Cathay's fifth 747-800, B-LJG (c/n 39244) from the manufacturer.

The revised Premium Economy experience features a quieter, more spacious cabin than the traditional Economy Class with between 26 and 34 seats per aircraft, with a seat pitch of 38 in (97cm) – 6 in (15cm) more than Economy Class – and the seat itself is wider and reclines further. It also has a large meal table, cocktail table, footrest, a 10.6 in (27cm) personal television screen, an in-seat power outlet, a multi-port connector for personal devices and extra stowage space. To complement these features passengers will receive priority check-in at dedicated counters and a small increase in baggage allowance.

The new cabin will be available to passengers on certain flights to Sydney, Toronto, Vancouver and New York from April 1 and will be unveiled on selected London routes from May. By the end of this year, the carrier will have the latest product installed in 48 aircraft and this will increase to 67 by the end of 2013.

The new long-haul Economy Class seat features a cradle mechanism to enhance the level of comfort in the reclined position, the latest high-resolution touch-screen personal televisions and connections for passengers' own mobile devices. It will be fitted to all of Cathay's long-haul 777-300ERs and Airbus A330-300s by December 2013.



Cathay Pacific's new Premium Economy experience features a quieter, more spacious cabin with between 26 and 34 seats per aircraft. The seat pitch is 38 in – six more than Economy Class – and the seat is wider with a longer recline. Cathay Pacific

## Lion Air Finalises Historic MAX Order

INDONESIA'S LARGEST private carrier, Lion Air has finalised a deal with Boeing, first announced at the 2011 Dubai Airshow, placing firm orders for 201 737 MAXs and 29 Next-Generation 737-900ERs (Extended Range), plus purchase rights for an additional 150 examples, in a deal valued at \$22.4 billion at current list prices.

"The 737 MAX is the best choice for

Lion Air and the best airplane to serve our passengers," said Rusdi Kirana, Lion Air's Founder and President Director. "We're excited to be the first airline in Asia to fly this new variant and to be the global launch customer for the 737 MAX 9." The contract for 230 aircraft is the largest commercial order ever in Boeing's history by both dollar value and number of airframes.



## Latest Dash 8 for SpiceJet

Pictured in the static display at the Singapore Airshow was this Bombardier Dash 8-Q402 in the livery of Indian carrier, SpiceJet. The aircraft is still wearing its Canadian test-registration C-GLFS (c/n 4396) and carried the name *Dalchini*. When the Dash 8 is finally delivered to SpiceJet it will become VT-SUJ. (Kwek ua Hao)



## Qantas Delays Dreamliner Service Entry

AUSTRALIAN NATIONAL carrier, Qantas having asked Boeing to speed up delivery of its initial 787-8s (see *Airliner World*, September 2010, pg 28) has now decided to delay the type's service entry. The move comes as the airline plans to slash capital expenditure in the 2012-13 financial periods. Chief Executive, Alan Joyce

said the change of plan had been made possible by the aircraft's manufacturing delays, and added that it will contribute to savings of \$2.3 billion in both years with further cuts to be identified for 2013. Boeing was due to deliver Qantas' first three of 15 787-8s in 2012; however, there has been no confirmation

when these deliveries will now take place. Speaking at the announcement of Qantas' half-year results, Joyce unveiled a raft of cost-cutting measures, including route closures, retiring older aircraft, and redundancies which he said were necessary to "restore, retain and increase our efficiency and competitiveness."

## Korean's Double Celebration

Korean Air celebrated the double delivery of the airline's first Boeing 747-8HTR, HL7609 (c/n 37132) and 777F85, HL8251 (c/n 37639), both freighters arrived at the carrier's Seoul/Incheon International Airport base on February 14. The airline becomes the first in the world to operate both freighter types. (Boeing)



## Garuda Indonesia Acquires Bombardier CRJ1000s

INDONESIAN FLAG carrier, Garuda Indonesia has signed a firm order for six Bombardier CRJ1000 NextGen regional jets valued at \$297 million at current list prices.

Also part of the deal are 18 options, which if exercised, will increase the contract's value to \$1.32 billion. Also at the signing ceremony, held at the Singapore Airshow, Garuda Indonesia

took the opportunity to announce it plans to acquire an additional 12 CRJ1000 NextGens from Scandinavian lessor, Nordic Aviation Capital.

The carrier's first CRJ1000 is expected to be delivered in October this year with a further five examples scheduled to join Garuda Indonesia's fleet before the end of the year, with a further 12 due to arrive in 2013.

## Japan Airlines Orders More Dreamliners

INSPITE STILL waiting for its first Boeing 787-8 Dreamliner to be delivered, Japan Airlines (JAL) has signed a contract for ten additional 787-9s and converted ten 787-8s it already has on order to the -9 variant. The latest commitments for the Dreamliner to 45, comprising 25 -8s and 20 -9s. It also has 20 outstanding options. JAL plans to put its first 787 into service in April.

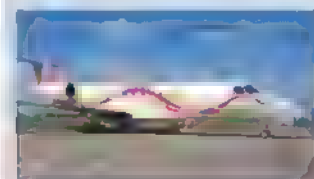
### in brief

**Air Australia** grounded its fleet on February 16 as the fledgling carrier entered voluntary administration. Having operated as Strategic Airlines since 2009, it was rebranded as Air Australia on November 15, 2011 and used a fleet of three Airbus A320s as well as two A330-200s

**Chinese authorities** have announced an ambitious plan to build the world's largest cargo airport near the capital, Beijing. The \$4.8 billion project of the as-yet-unnamed facility is due to have nine runways, handle 5.5 million tonnes of freight per year and should open for business in October 2017

**Drukair**, the flag carrier of the Kingdom of Bhutan has signed a Memorandum of Understanding with Airbus for an A319 fitted with fuel-saving 'Sharklet' wing-tip devices to complement its existing fleet of two A319s. This latest jet will be used to increase capacity on existing regional routes as well as opening new services to Singapore and Hong Kong.

Making its first public appearance since its delivery to the international movie star, Jackie Chan's **Embraer Legacy 650** was recently on display in the static park of the Singapore Airshow. Identified by its distinctive 'dragon' livery, the jet and Jackie Chan, an Embraer Brand Ambassador, will help the Brazilian manufacturer promote its entire family of executive aircraft, not only in the rapidly growing greater Chinese market, but also globally. (Photo Embraer)



Indonesian domestic carrier, **Merpati Nusantara Airlines** is planning to expand its fleet by up to 75 new aircraft over the next four years. It signed a Memorandum of Understanding for 40 Comac ARJ 21-700 twin-engined regional airliners at the Singapore Airshow. Deliveries are scheduled to commence in 2014 through to 2017, at a rate of ten per year

**Pakistan International Airlines (PIA)** signed a contract on February 20 for five additional Boeing 777-300ERs valued at nearly \$1.5 billion at current list prices. The deal also includes purchase rights for five additional examples and brings the carrier's total commitments for the 777 Family to 13. This order completes PIA's renewal plan for its wide-body long-haul fleet.

**Singapore Airlines Cargo** is cutting its freighter capacity by 20%, although it has said it will not be grounding any of its 13 Boeing 747-400Fs, but will be operating each aircraft for fewer hours.



# A330P2F Cargo Conversion

AIRBUS, ST Aerospace and European Aeronautic Defence and Space Company's (EADS) Elbe Flugzeugwerke (EFW) subsidiary have signed a MoU for a strategic partnership to develop the A330 Passenger-to-Freighter (P2F)

conversion programme. ST Aerospace will lead the engineering development, working with Airbus and EADS EFW, which will subsequently be responsible as programme lead during the industrial phase, and will undertake

most of the conversions at its facilities in Dresden, Germany. It is planned that EADS EFW will become the European centre for ST Aerospace's global maintenance, repair and overhaul operations.

The A330P2F programme includes two versions: the A330-200P2F and the larger A330-300P2F. Entry into service for the first aircraft is targeted for 2016. (Photo Airbus)



## Heavy-lift Helicopter Certification

CHINA'S CIVIL aviation authority has cleared the country's biggest-ever helicopter for domestic use. The 13.8-tonne AC313 is the latest development from the Aviation Industry Corporation (AVIC) and made its first test flight in March 2010. Certification means companies can immediately take delivery and start commercial flights. Its first customer is northeast China-based China Flying Dragon Aviation, which operates cargo and passenger charter flights and carries out utility work such as forest fire-fighting. The company plans to lease

the first five AC313s produced. The aircraft is a larger and heavily modified version of the seven-ton Zhi-8 medium transport helicopter, which is a close copy of the French Aerospatiale SA 321 Super Frelon. China bought 13 of the French design in the 1970s and at least one was reportedly disassembled for study and reverse-engineering. The helicopter is powered by Pratt & Whitney PT6B-67A engines from Canada and can carry up to five tons of cargo in a sling, and has room for 27 passengers or 15 stretchers.

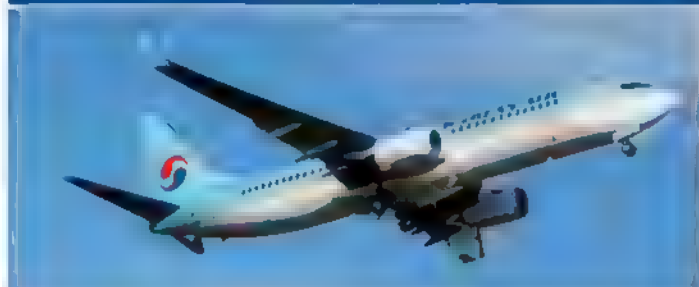
## Eirtech Expansion Continues

IRISH HEADQUARTERED MRO specialist Eirtech Aviation has continued its expansion with the addition of two newly built narrow-body hangars, in Ostrava, the Czech Republic. The group employs around 200 people. Founded in 1999, Eirtech Aviation changed own-

ership in 2009 following a management buyout by Lufthansa Technik. It operates from three bases (Shannon, Dublin and Ostrava) comprising seven narrow-body bays and a wide-body capability at Dublin. (Photo Eirtech)



## BOEING DELIVERIES



Korean Air's latest Boeing 737-800, HL8242 (c/n 38824) is pictured departing Boeing Field, Seattle, Washington, on its delivery flight on January 23, 2012, as 'Korean Air 030 Delta'. (Joe G. Walker)

Boeing delivered the following aircraft in January:

B737-800	24	Alaska Airlines, American Airlines, ACG, AWAS (2), BBAM, China Southern Airlines, Flydubai, GECAS (2), Hainan Airlines, ILFC, Japan Airlines (2), Pegasus Airlines (2), Ryanair (4), Shandong Airlines, TUI Travel, Virgin Australia, Xiamen Airlines
B737-800BBJ	1	Boeing Business Jets
B737-900ER	3	Continental/United, Lion Air (2)
B747-8F	1	Volga Dnepr Airlines
B767-300ER	1	AN Nippon Airlines
B767-300F	1	UPS
B777-300ER	5	Air New Zealand, Emirates Airline, Etihad Airways, Saudi Arabian Airlines (2)
B787-8	2	AN Nippon Airlines (2)
<b>Total</b>	<b>38</b>	

## Good Show For Bombardier

BOMBARDIER AEROSPACE made a number of announcements at the recent Singapore Airshow in February. Indonesian flag carrier PT. Garuda Indonesia (Persero) was confirmed as the (previously unidentified) customer for six CRJ1000 NextGens and 18 options, while the carrier also took the opportunity to announce its plans to acquire 12 more CRJ1000 NextGens from a lessor.

There was also confirmation that Ethiopian Airlines has placed a firm

order for five Dash 8-Q400 NextGens and Horizon Air of Seattle, Washington, has signed a firm purchase agreement for two more Q400s.

The manufacturer also revealed it will open a full-scale company-owned and operated service centre in Singapore in 2013. This will ensure that Learjet, Challenger and Global business jets' customers have even broader access to Original Equipment Manufacturer-backed service in the Asia-Pacific region in their own time zone and region.





Alenia Aermacchi has delivered the 1,000<sup>th</sup> fuselage from its Pomigliano d'Arco production facility, near Naples in Italy, to the main assembly factory at Toulouse, France. (Alenia)

## Bombardier's 2011 Performance

BOMBARDIER AEROSPACE has announced its deliveries and orders for the 11-month fiscal year that ended December 31, 2011. It delivered 245 aircraft (compared to 256 in the previous fiscal year (February 1, 2010, to January 31, 2011)). The company stated that this was essentially in line with the 240-aircraft delivery guidance that was provided in February 2011. During the same period, the company received 249 aircraft orders, net of cancellations. "The recurring fluctuations in the world economies in 2011 created a mood of caution in many sectors, and the resulting uncertainty continued to challenge

the civil aviation industry," said Guy C. Hachey, President and Chief Operating Officer of Bombardier Aerospace. "However, with our comprehensive portfolio of business, commercial and amphibious aircraft, we are well positioned to meet the long-term needs of our customers."

### Business Aircraft:

Deliveries – 163 (155)

Orders – 191 net (107)

### Commercial Aircraft:

Deliveries – 78 (97)

Orders – 54 net (93)

(Figures in bracket are for the previous fiscal year.)



KLM has received its first and second Airbus A330-303s, with F-WWKK/PH-AKB (c/n 1294), pic tured at Toulouse on February 20. (Airbus)

Airbus delivered the following aircraft in January

A319	2	Germanwings, LAN Airlines
A320	24	AlrAsia (2), Air China, Airph Express, British Airways, Cebu, China Eastern Airlines, Go Air, Hong Kong Airlines, Indigo, Juneyao Airlines, 2 Middle East Airlines, Philippine Airlines, Qatar Airways, Shenzhen Airlines, 2 South African Airways, Spirit Airlines, Spring Airlines (2), Tiger Airways, Virgin America (2)
A321	1	Lufthansa
A330-200	5	Air China, Alitalia, Avianca, China Eastern Airlines, Hong Kong Airlines
A330-200F	1	Malaysia Airlines
A330-300	3	China Airlines, Malaysia Airlines, Swiss International Air Lines
A380-800	1	Singapore Airlines
Total	37	

## First Flight For Trent XWB

THE AIRBUS A350 XWB's new engine – the Rolls-Royce Trent XWB – has made its maiden flight aboard Airbus' dedicated A380 'Flying-Test-Bed' aircraft. Taking off from Toulouse, the flight lasted more than five hours, during which the engine covered a wide range of power settings at altitudes up to 43,000ft, while aircraft handling qualities were evaluated from low speeds to Mach 0.9.

The aircraft has been fitted with test sensors to measure hundreds of parameters, and is mounted on the A380's inner left engine pylon, replacing one of the aircraft's Trent 900s.

## Twin Otter Sales

A TOTAL of 15 new de Havilland Canada/Viking DHC-6-400 Twin Otters have already been sold in 2012. Orders have come from Seabird Airlines of Istanbul, Turkey, which has signed a six-aircraft deal along with an exclusive sales representative agreement covering Series 400 aircraft sales in Turkey, and from Caverton Helicopters of Lagos, which will be adding a new Series 400 to its current fleet of two. An undisclosed customer has signed, at list price, a \$28million deal for four new aircraft, destined for Chile and Peru and two VIP versions – one (float-equipped) to Panama and one (wheel-equipped) to Tahiti.

## in brief

**International Aero Engines (IAE)** has stated that its V2500 reached 100 million flight hours late last year. The A-1 version contributed 15 million, the A-5 80 million and the D-5 7 million. In addition, the 5,000th V2500 engine was installed on an Airbus A320 delivered to SilkAir of Singapore in mid-January.

**Embraer** has delivered its 300th **Phenom** jet – the aircraft going to a customer in the USA. Deliveries have continued to increase since the first arrivals in December 2008, when the Phenom 100 entered into service. In 2009, deliveries rose to 98, with another 126 being added in 2010 and 83 in 2011.

**Lufthansa Technik Philippines (LTP)**, a joint venture between Lufthansa Technik (51%) and the Philippine MacroAsia Corporation (49%), has opened a third hangar in Manila for work on wide-body aircraft. (Photo LTP)



Singapore-based aircraft leasing company **BOC Aviation** placed an order for 20 150-seat C919s from Commercial Aircraft Corp. of China (COMAC) at the Singapore Airshow. The company now operates a fleet of more than 170 aircraft with an average fleet age of four years. COMAC says that it has 235 orders for the C919 from customers including Air China, China Eastern Airlines, China Southern Airlines, Hainan Airlines, Sichuan Airlines, China's Bank of Communications Financial Leasing, China Development Bank Leasing, ICBC Financial Leasing, China Aircraft Leasing and GE Capital Aviation Services (GECAS).

**SriLankan Airlines** and **Lufthansa Technik** have signed a five-year component supply contract for the carrier's Airbus A320 fleet. Spare parts will be supplied to the airline's home base at Bandaranaike International Airport in Colombo, where also the main base stock of certain Aircraft-On-Ground (AOG) relevant components is being kept. Repair and pooling of the components will be carried out at Lufthansa Technik's base in Hamburg.

European turboprop manufacturer **ATR** and **Fokker Services Asia** have announced the signature of an agreement covering airframe maintenance, repair and overhaul (MRO) services of ATR aircraft operating in South East Asia at the Fokker Services Asia facilities in Singapore. ATR aims to provide its operators with a worldwide choice of independent and highly-skilled airframe maintenance services providers.



# Flughafen Zurich – A

**Craig West** examines how Zurich Airport's recent upgrades have positioned the facility as one of the most modern in Europe.

Zurich Airport has invested heavily to position itself as one of the most modern facilities in Europe. (Zurich Airport)



HB-IOL

craigourmet



# Gateway to Switzerland

**N**estled near the municipality of Kloten in northern Switzerland, Zurich Airport is the country's largest and busiest international gateway. While lacking the number of movements of some of the larger European hubs, the facility remains relatively busy with most of Swiss International Air Lines' long- and short-haul fleets rotating through this, their home base, at some point during the day. Local carriers Air Berlin Switzerland, Edelweiss and Hello maintain a presence while many major international carriers also have connections to the city.

Unusually, the hub airport, which handled 24.3 million passengers and over 415,000 tonnes of freight during 2011, also plays host to a large number of general aviation movements, with the annual World Economic Forum meeting in Davos (see p10-11) generating a significant portion of this traffic.

## Early Years

Zurich Airport's history can be traced back to 1945 when a plan was approved by the Swiss parliament for the development of four new facilities capable of handling international air traffic. Surprisingly, Zurich was selected as one of the sites (the others being Basel, Bern and Geneva), despite the presence of a large airfield at nearby Dübendorf. The former Swiss army munitions depot at Kloten was identified by Government of the Canton of Zurich as a suitable location and a CHF36.8 million (US\$5.3 million) construction project was launched in July 1946. The airport accepted its first flights barely two years later, in June 1948, though the terminal building was not officially opened until 1953.

With passenger figures rising dramatically and airlines adding jet aircraft to their fleets, it was not long before further expansion was necessary and in 1958, a CHF48 million (£33 million) credit facility was approved for the 'stage 2' project. The airport introduced a series of improvements including a longer main runway and the addition of a second – completion of >>

This image, dating back to the early 1970s, shows the parking ramp and cargo area adjacent to Dock A. (Zurich Airport)

Opposite • An early 1950s-vintage photograph showing some of Swissair's classic propeller fleet including a Convair CV-240, three Douglas DC-3s and a DC-4. (Zurich Airport)







the work in 1961 coincided with the introduction of the jet-powered Douglas DC-8 and Sud Aviation Caravelle by based national carrier Swissair.

The jetway-equipped Terminal B was added to the facility during the 1970s along with a third runway while changes were also introduced to aircraft operations. With jet noise and environmental concerns high on the political agenda, Zurich adopted a particularly pro-active attitude, developing new approach routes for aircraft in an effort to reduce disturbance to local residents and introducing a night time curfew for flights.

Since the completion of stage 2, development of the airport has been almost continuous with construction of a third runway and, several years later, the mid-field Terminal E providing a significant increase in capacity.

### New Facilities

While relatively small in comparison to some of the larger European hubs such as nearby Frankfurt, one area where Zurich has excelled is customer service and the passenger experience, with the multi-award winning facility having placed first in the World Travel Award's European category for eight consecutive years.

This success can be attributed to the airport's ongoing commitment of improving the passenger experience. The most significant changes of recent years were brought about under the 'Zürich 2010' project (see panel), a CHF430 million (£303 million) investment programme which resulted, among more general improvements, in the wholesale redevelopment of Dock B and construction of a new security area.

Opened on December 1, 2011, the new centralised security building was built in

Based national carrier Swiss International Air Lines is the dominant carrier at Zurich and account for over 56% of the total airport movements. **Airline**

between the existing Check-in 1 and 2 areas, replacing the previously separate facilities. Spanning four floors, the building incorporates 26 security lines and is accessed through a newly installed automated boarding card control. One of the main difficulties had been combining

**"THE AIRSIDE CENTRE CONTAINS MORE STEEL IN ITS CONSTRUCTION THAN THE EIFFEL TOWER!"**

A view of the ramp area adjacent to Dock A. In the background is the mid-field Terminal E.

the separate facilities of Dock A, Dock B and the remote Terminal E. The solution was relatively simple; passengers are separated across different floors, while an overflow facility helps cater for the higher volume.

Automation is playing an increasingly







important part in speeding up this checking process, with boarding card readers expediting passengers through to the new security area. Not only does this reduce waiting times, it also has a direct impact on the number of staff required at checking areas. Where problems do arise, guides, employed by the airport, intervene to help improve passenger flow throughout the facility and to assist passengers with the automated processes.

An interesting feature of the centralised security building is the intelligent lighting system – cameras count passenger traffic at any given time and lighting can be adjusted to provide a 'virtual light path', guiding passengers to particular security desks or into the overflow area. Zurich is also one of 13 airports currently trialling new equipment (such as liquid scanners), >>

Above Right - The upgraded Dock B is designed to engage with visitors of all ages. A children's play area is located on the observation deck while the cloud hangs in on display inside.

Right - Located airside between Dock A and B, the new sports bar, complete with its extremely large television showing live sports, is a popular spot amongst travellers and airport staff alike.

Below - Zurich Airport plays host to a large volume of business aircraft, with general aviation accounting for almost 41,000 movements during 2010.



#### ZURICH AIRPORT INFORMATION

ICAO Code	LSZH
IATA Code	ZRH
Position	N47.2730, E008.3253
Elevation	1,384.5ft (422m)
Runways	16/34 - 12,139ft x 196ft (3,700m x 60m) 14/32 - 10,827ft x 197ft (3,300m x 60m) 10/28 - 8,202ft x 196ft (2,500m x 60m)
Website	<a href="http://www.zurich-airport.com">www.zurich-airport.com</a>







The Airbus A320 family accounts for 25% of all aircraft movements at Zurich. Here, Iberia's A319-111, EC-KUB (c/n 3615) holds short of Runway 28 as A320-214, HB-IMX (c/n 942) of Edelweiss departs.

with the airport providing feedback directly to the policy makers in the European Union.

Improvements have also been made airside, with Zurich one of only three airports in the world to feature arrival Duty Free. Immediately apparent are the large number of restaurants and up-market stores and boutiques in the Airside Centre that links Dock A and B, while the introduction of new sports bar, complete with its extremely large television showing live sports, is proving

to be a popular spot with both travellers and airport staff. According to the airport, the Airside Centre contains more steel than the Eiffel Tower.

### Mixed Mode

With a relatively even split of services to Schengen and non-Schengen destinations, a major obstacle faced by the airport was separating these passengers airside (see panel). Dock A is used exclusively for Schengen services while the remote Terminal E is

linked to the main terminal area via the Sky Metro system and caters for non-Schengen traffic. The redevelopment of Dock B has allowed the airport to introduce flexible operations, with stands around the new facility easily transferable between the two. Dock B is split over two floors, with D gates (non-Schengen) and its associated passport control located on the ground floor, and B gates (Schengen) on the first. Flights departing from the modernised pier use one of nine stands, while a further eight bus gates are provided for remotely parked aircraft. Jetways are installed on the upper floor only but can be quickly configured by ground staff to feed from either B or D gates.

At CHF180 million (£124.2 million), the upgrade of Dock B was the most complex element of the 'Zurich 2010' project. Effectively a complete rebuild of the original 1975-vintage facility, the new pier retains only the support columns of the original construction.

Speaking with *Airliner World*, Jasmin Bodmer of Zurich Airport's Corporate Communication team explained that Dock B had been redesigned "to appeal to, and engage with, passengers using the facility." Key design features include large, open spaces while a glass atrium fills the main corridor with natural light. This is also the location for the specially commissioned 'cloud' artwork by Inigo Mangano-Ovalle - the polished metal sculpture hangs on display and is reminiscent of the typical cloud formations found over the mountain ranges of Switzerland.

### ZURICH AIRPORT: TOP 5 AIRLINES

Swiss International Air Lines	56.2%
Air Berlin	6.9%
Edelweiss Air	3.6%
Lufthansa	3.5%
British Airways	2%

Based on total passengers carried in 2010

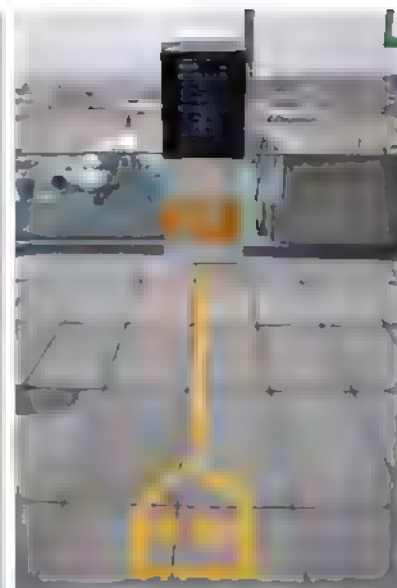






The close relationship between Zurich Airport and based operator Swiss International Air Lines is immediately apparent, with check-in heavily branded with the carrier's logo.

The 75,347sq ft (7,000m<sup>2</sup>) observation deck allows unrivalled views of the airfield and includes interactive, multimedia binoculars, flight information screens and even a specially designed panel that transmits Air Traffic Communications.



**"A KEY TO ZURICH'S SUCCESS HAS BEEN THE CLOSE RELATIONSHIP THE AIRPORT HAS FORGED WITH THE BASED NATIONAL CARRIER, SWISS INTERNATIONAL AIR LINES."**



### Close Encounters

One of the big attractions of Dock B is the refurbished observation deck. The new facility adds to the viewing terrace on Terminal E (which will now only open during the summer months) and offers excellent views of the adjacent stands, maintenance area, remote parking on the western side of the airfield and Runway 16 departures. For the purist photographer, the deck is perhaps not in the ideal location, with the majority of arrivals using Runway 14 and departures generally favouring Runway 28, both of which are obscured by Dock A. However, and perhaps most noteworthy, the facility does offer generally unobstructed access to a significant proportion of the aircraft movements and this, coupled with the ramp tours offered by the airport, are welcome features, particularly in these security-conscious times. Indeed, Bodmer highlighted that the airport was particularly 'spotter friendly', adding that the facility welcomes aviation enthusiasts.

### ZURICH AIRPORT: TOP 10 DESTINATIONS

London (All airports)	1,575.0
Berlin	799.8
Vienna	774.2
Paris	694.0
Düsseldorf	646.7
Amsterdam	608.5
Hamburg	593.5
Frankfurt	558.4
Geneva	506.9
Madrid	487.4

\*Number of passengers to the nearest 1,000

Locally-based Helvetic Airways operates scheduled services on behalf of Swiss using a fleet of Fokker 100s.

Understandably, security was one of the biggest risks associated with the observation deck and everyone accessing the terrace must pass through a security check point, which includes baggage x-ray and metal detector.

Designed by Zurich Airport's Visitor Services and Events team, a 'fascination of flying' concept has been applied to the 75,347sq ft (7,000m<sup>2</sup>) terrace. Supporting this theme, the observation deck includes several innovative design features, including a separate pier that runs perpendicular to one of the aircraft stands, allowing visitors to witness the turnaround process first hand. Interaction is a large part of the terrace's appeal and the airport has also installed several sets of multimedia binoculars, which provide information on both fixed and mobile points of interest including moving aircraft; Air Traffic Communications can be heard through a specially designed information panel. For children, there is a large, airport-inspired play area, with the various items of play equipment carrying the branding of various partners including Swiss International Air Lines (Swiss).

Surprisingly, despite the CHF5 (£3.44) entry fee, the observation deck does not deliver any profit to the airport, with the money being used to offset staff and security costs. It is, however, one of several excellent PR tools for Zurich – this self-promotion resulted in the airport's Airside Centre featuring in the album artwork of a local rock band, while scenes from the recent blockbuster film, 'The Girl with the Dragon Tattoo' were also filmed here.

### Public Support

Unusually, Zurich Airport has a good relationship with the residents who live in the surrounding suburbs. The facility, which handled 279,001 flights during 2011, operates a strict curfew between 11:00pm and 6:00am. Furthermore, very specific departure and arrival routings are used, with aircraft arriving before >>


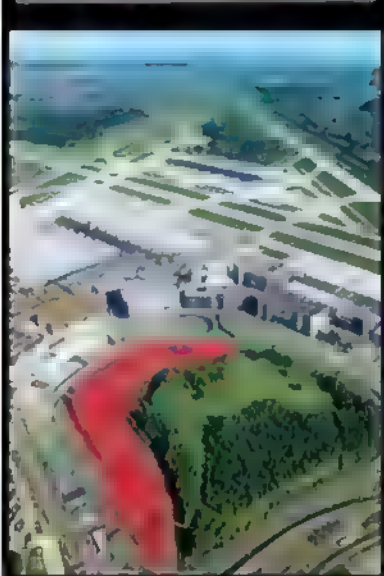


7:00am approaching from the south but later flights routing over the sparsely populated area to the north; outbound flights generally use Runway 28 or perform a circling departure from Runway 16 to fly down a narrow corridor to the west. The airport has also adopted a climate protection programme with the aim of reducing carbon emissions by 20,000 tonnes by 2030.

Thus approach has been welcomed by the residents of Zurich, who previously have rejected several 'fair flight initiatives', most recently in November 2011. The vote was a significant show of support for the airport, with the initiatives intended to restrict its development preventing any future expansion of the airport site.

### Moving Forward

A key to Zurich's success has been the close relationship the airport has forged with the based airline, Swiss. The partnership makes very good sense, given that the national carrier is responsible for over 56% of the airport's movements. The airport is keen to develop itself as a key European hub, but faces significant competition from some of its larger and more established neighbours. Bodmer explained that the facility has to increase its limited aircraft parking capacity though expansion beyond the current site is unlikely because of the close proximity of the surrounding villages and a lack of suitable land. Furthermore, the airport is set to lose several of its aircraft stands over the next few years; Zurich is committed to replacing its current, temporary engine test bay located in the maintenance area with a larger, permanent structure. Meanwhile, the decision by Swiss to replace its current

## The Circle

Marketed as a 'destination within a destination', The Circle is one of the more ambitious developments currently being planned by Zurich Airport. Designed by Japanese architectural firm Riken Yamamoto & Field Shop, the new complex would be located on open ground adjacent to the airport's main terminal and will include hotels; conference and event facilities, restaurants, and a health and beauty centre complete with out-patient clinic. Planning permission for the new project was requested in October 2011 and construction work could potentially begin as early as 2013. (Photos Zurich Airport)

fleet of Avro RJ100s with the Bombardier CSeries means that the remote stands adjacent to Dock A will have to be expanded to accommodate the larger twin jet.

An interesting development following Zurich's privatisation in 2000 was the move into airport management – in its guise as 'Zurch Airport' (formerly Urueque) the group owns a 5% stake in Bengaluru Airport in Bangalore, India, and has interests in several other facilities across South America, and in particular, Chile, Columbia and Honduras.

The steady but unspectacular expansion of Zurich Airport has placed it in a very strong position, particularly in the area

**"ZURICH AIRPORT HAS A GOOD RELATIONSHIP WITH THE RESIDENTS WHO LIVE IN THE SURROUNDING SUBURBS."**

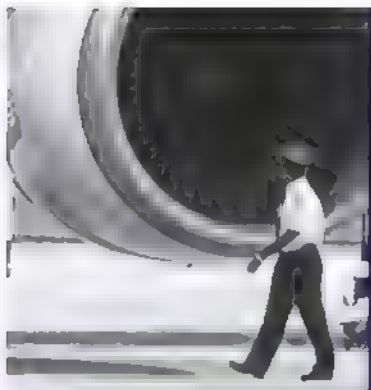
of customer service. The airport is extremely well connected, with over 900 bus and 380 train services linking it daily to Switzerland's renowned public transport system: downtown Zurich, one of the most significant financial centres in the world, can be reached in only 12 minutes. Added to this, the airport has scheduled, non-stop flights to 179 destinations in 70 countries and with a guaranteed 40-minute connection, Zurich appears to be well placed to handle the increasing demands of the future. **2/17/1**

Swiss is the largest operator at Zurich and is a key partner for the airport.

Thanks to Jasmin Bodmer and Luzia Popp of Zurich Airport's Corporate Communication team for their assistance.







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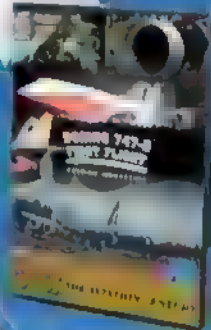
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# Biman BANGLADESH DC-10

**FLYING** savours the nostalgia of a flight in a classic trijet from Abu Dhabi to Bangladesh.

**"THE WIDE-BODY ERA  
DAWNED RELATIVELY  
LATE IN THE SKIES  
OVER BANGLADESH  
WITH A JUDICIOUSLY-  
SOURCED TRIO  
OF FOUR-YEAR-  
OLD DC-10S FROM  
SINGAPORE AIRLINES."**



During the turnaround, the pilots invited our small group onto the tarmac to join them for the exterior inspection.

**T**he 'titans' of the early jet age are almost gone from the sky. We now fly in a brave new world of electric jets, with interiors squeezed out of a toothpaste tube, two-man cockpits of digital screens, unprecedented fuel efficiency and an accident rate that is close to zero. The Airbus A340 and Boeing 777 types have now flown for a couple of decades without recording a single fatality.

While this has happily resulted in more reliable and affordable air transport than at any time in history, the bygone age of trijets, spiral staircases and colourful





interiors is much missed by connoisseurs of air travel, so as the old types are retired, one must cherish the remaining few before they join their contemporaries in the desert boneyards. One such survivor is the Douglas DC-10, now serving just one passenger airline: Biman Bangladesh.

### **The country**

Air travel allegedly began in what is now known as Bangladesh sometime before the second century BC, when the Ramayana, a Hindu scripture, referred to, "A Pushpaka chariot that resembles

the Sun...going everywhere at will; that excellent chariot resembling a bright cloud in the sky. And the King Rama got in, and the excellent chariot, at the command of the Raghira, rose up into the higher atmosphere." Nineteenth century Hindu scholar Swami Dayananda Saraswati looked back at an ancient technology that involved: "Jumping into space speedily with a craft using fire and water... containing 12 pillars, one wheel, three machines, 300 pivots, and 60 instruments." These gigantic flying machines were called 'Vimana', which in modern Hindi became 'Biman', the

word for aeroplane, and contemporary Bangladesh adopted the name for its flag carrier which was founded in 1972, the year after the birth of the nation.

The country is the seventh most populous nation in the world at 158 million, despite being only number 95 for land area. Many of its citizens seek employment abroad, both in Europe (especially the United Kingdom, where they are the sixth biggest foreign-born community) and more recently in the Persian Gulf, where they make up a large percentage of the workers who have transformed cities such as Dubai, Doha >>

Biman Bangladesh acquired the Douglas DC 10 (S2-ACD) in 1983 from Singapore International Airlines.

and Abu Dhabi from backwater trading ports to gleaming futuristic metropolises.

Biman started out with a fleet of 707s mostly acquired from Northwest Orient Airlines in the USA, flying regionally to the likes of Rangoon, Bangkok and Singapore, and later across India, the Persian Gulf and on to the already-growing Bengali community in London. The wide-body era dawned relatively late in the skies over Bangladesh with a judiciously-sourced trio of four-year-old DC-10s from Singapore Airlines, delivered to Dhaka in August 1983. A fourth was delivered new from Long Beach in December 1988 (the penultimate DC-10 built). Two more aircraft were bought from Canadian Airlines in 1999 and 2000, one of which was written off in a non-fatal landing accident at Chittagong in July 2005.

#### BIMAN DC-10 FLEET

Reg'n	c/n	Acquired	Status
S2-ACO	46993	1983 ex SIA	active
S2-ACP	46995	1983 ex SIA	active
S2-ACQ	47817	1983 ex-SIA	stored for spares
S2-ACR	48317	1989 new	active
S2-ACS	46543	1999 ex-Canadian	stored for spares
S2-ADA	46999	1993 ex-World	sold to Aeroflot 1994
S2-ADB	47818	1993 ex-World	sold Caledonian 1996
S2-ADH	46542	2000 ex-Canadian	runway overrun Chittagong 2005

Today, one ex-Canadian machine (S2-ACS) and one ex-Singapore (S2-ACQ) are parked at Dhaka airport, and used as 'Christmas trees' (ie robbed for spare parts) by the maintenance department to keep three others flying – the two remaining from Singapore Airlines (S2-ACO and P) and the late-build S2-SCR. The airline also flies two 737-800s, three A310s, and four vintage Fokker F-28 Fellowships. The DC-10s have now been replaced on the airline's most prestigious routes to Europe by four brand-new 777-300ERs, but remain in service on routes to the Persian Gulf for their low-cost people-moving ability, and to Hong Kong for their cavernous cargo carrying space.

#### Abu Dhabi – Dhaka

The author and three other airline 'historians' travelled to Abu Dhabi International Airport in early 2012. There, they boarded a shuttle bus from the main terminal to the southeast end of the airport and its 'low cost' Terminal 2. This serves Pakistan with Air Blue (ED), Nas Air (XY), Shaheen Airlines (NL), and flag carrier Pakistan International Airlines (PK); Iran with Iran Aseman (EP) and Kish Air (Y9) and an assortment of exotic flag carriers including Sudan Airways (SD), Turkmenistan Airways (T5) and Yemenia (TY). But today, the more interesting flight for the group is the five times weekly DC-10 service to Dhaka, via Chittagong or Sylhet, aboard Biman Bangladesh.

As the aircraft climbed on an easterly heading towards the lights of Oman, the horizon ahead began to emerge out of the inky blackness.



Check-in for BG 028 opened at midnight for a 0200 departure, but keen passengers began arriving at the terminal in the middle of the evening, forming a long, orderly line outside the building. While some were traders and businessmen, most had come to the Persian Gulf to work on construction sites – building roads, bridges, ports, and the sci-fi skyline of this once sleepy port. All have been away from their families and homes for months, if not years.

Check-in is handled by Etihad Ground Services, whose agent was happy to ensure the author got a window seat behind door two, next to the right engine, to enjoy the sunrise that would appear as the aircraft crossed the Arabian Sea. Security and emigration were quick and professional, and led into the departure lounge.

A large room with seating, a Duty Free shop and small snack bar faced the all-glass end wall with two bussing gates that looked out onto the general aviation apron, affording an excellent view of the aircraft parked directly outside. The aircraft arrived (almost) on time at 0030, and its load of 314 passengers were quickly deplaned and turnaround began.

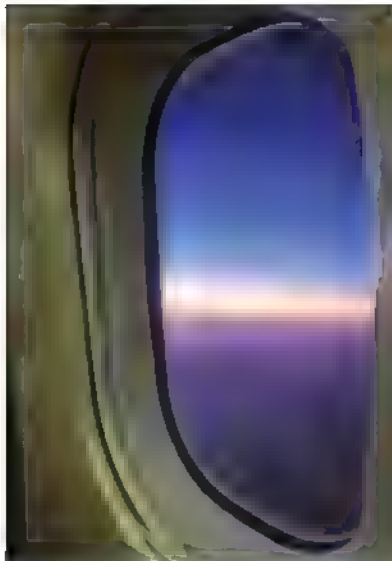
Meeting the pilots for the flight in the Duty Free shop, a visit to the flightdeck was requested – and approved! The author had been in a DC-10 simulator filming for a documentary the previous week, and was able to show photos from the session, as 'credentials'.

**Window** – It was an early start at Abu Dhabi for the passengers and crew. A quiet night in the airport.

**Runway** – Once the first leg to Chittagong was completed, it was time for the pilots to take a short break for a snack.

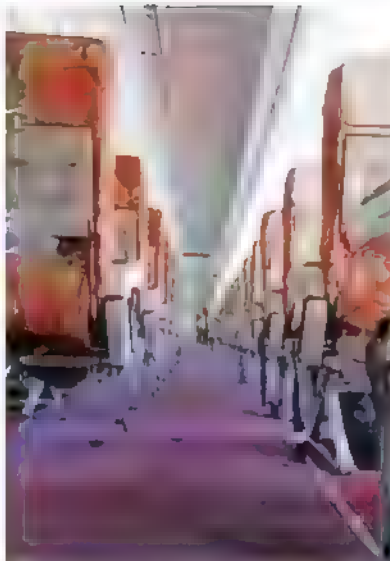






Boarding was announced and the entire room stood up and formed a line. Buses were used to ferry passengers the few metres to the foot of the steps of the mammoth DC-10, humming with ground power and surrounded by technical crew, security, caterers and refuellers.

Once inside the cabin, unlike other 'Jurassic' jets (such as Delta's plush



eventual pushback, the purser (possibly with a recommendation from the flightdeck crew) did some 'rearranging' of passengers and seated our group by the windows in the first two rows of the forward cabin.

As the aircraft trundled slowly northeast on taxiway Zulu, the purser reappeared and gestured to the author and one of the travelling companions to go to the flightdeck. In the comforting darkness of the wide and spacious cockpit, there was a galaxy of glowing dials and buttons. The only digital equipment was the TCAS-equipped vertical speed indicators (VSI) on each pilot's panel. The Flight Engineer gestured to the two jumpseats, one low down in the centre of the cockpit between the two pilots, and one high up on the left side behind the Captain.

The crew was just completing the final checklist – elevator trim set; spoilers retracted; take-off data set; flaps set; landing lights on; strobe on; pitot heat



on; ignition continuous. The Captain pushed the throttles up, then briefly released them so the Flight Engineer – 'the best autothrottle ever installed in an aeroplane' – could finesse the levers into position, lining up the needles on the gauges of the centre panel. Take-off power was set and the aircraft started rolling. At 80kts, the Captain released the nosewheel steering control by his left knee and started to 'fly' the aircraft. At V1, committed to take-off, he let go of the throttles. Pulling the stick back at the Rotate speed, the nose lifted into the air and the rumble of the main gear on the Tarmac ceased. 'Gear up' was selected, and the four green lights on the instrument panel turned red as the wheels retracted into their bays in the aircraft's belly.

Less than an hour after being on the chocks at Chittagong, the flight was ready to push back and start up for the short sector to the capital city of Dhaka. (Sam Chou)

Above • Once inside, unlike other 'Jurassic' jets (such as Delta's plush DC-9s), no effort had been made to disguise the age of the hardware – brightly coloured fabric on the seats, swirling floral patterns on the side walls and old-fashioned overhead bins.

Left • The bright-coloured patterned seats certainly made a change from the 'normal' plain upholstery found in modern jetliners.

**"NO EFFORT HAD BEEN MADE TO DISGUISE THE AGE OF THE HARDWARE – BRIGHTLY COLOURED FABRIC ON THE SEATS, AND SWIRLING FLORAL PATTERNS ON THE SIDE WALLS"**

DC-9s), no effort had been made to disguise the age of the hardware – brightly coloured fabric on the seats, swirling floral patterns on the side walls, old-fashioned overhead bins, and in the forward cabin, no overhead bins in the centre at all; a reminder of the old days when airline passengers just boarded with a book to read.

Other than the DC-10-admiring travellers, everyone else onboard was Bangladeshi. Heading home for reunions earned the hard way, our fellow passengers were very smartly dressed, with fresh haircuts and clean-shaven.

Boarding was quickly finished and the aircraft was ready to taxi. Alas, air traffic control – specifically Muscat Centre – had other ideas, and had apparently been delaying overflights all week. This trip proved no exception. During the delay, the cabin crew opened all eight doors for ventilation, affording some unusual views of the rugged DC-10 wing, close-in engines, and the rest of the ramp. Just before the



panel behind the throttles and recycled the selector past standby to off, then back on. It worked. The tower controller announced radar contact established then handed over the flight to Abu Dhabi Departures.

As the aircraft climbed on an easterly heading towards the lights of Oman, the horizon ahead began to emerge out of the inky blackness. First there was azure, and then the reds, oranges and yellows of a beautiful Persian Gulf sunrise began to appear.

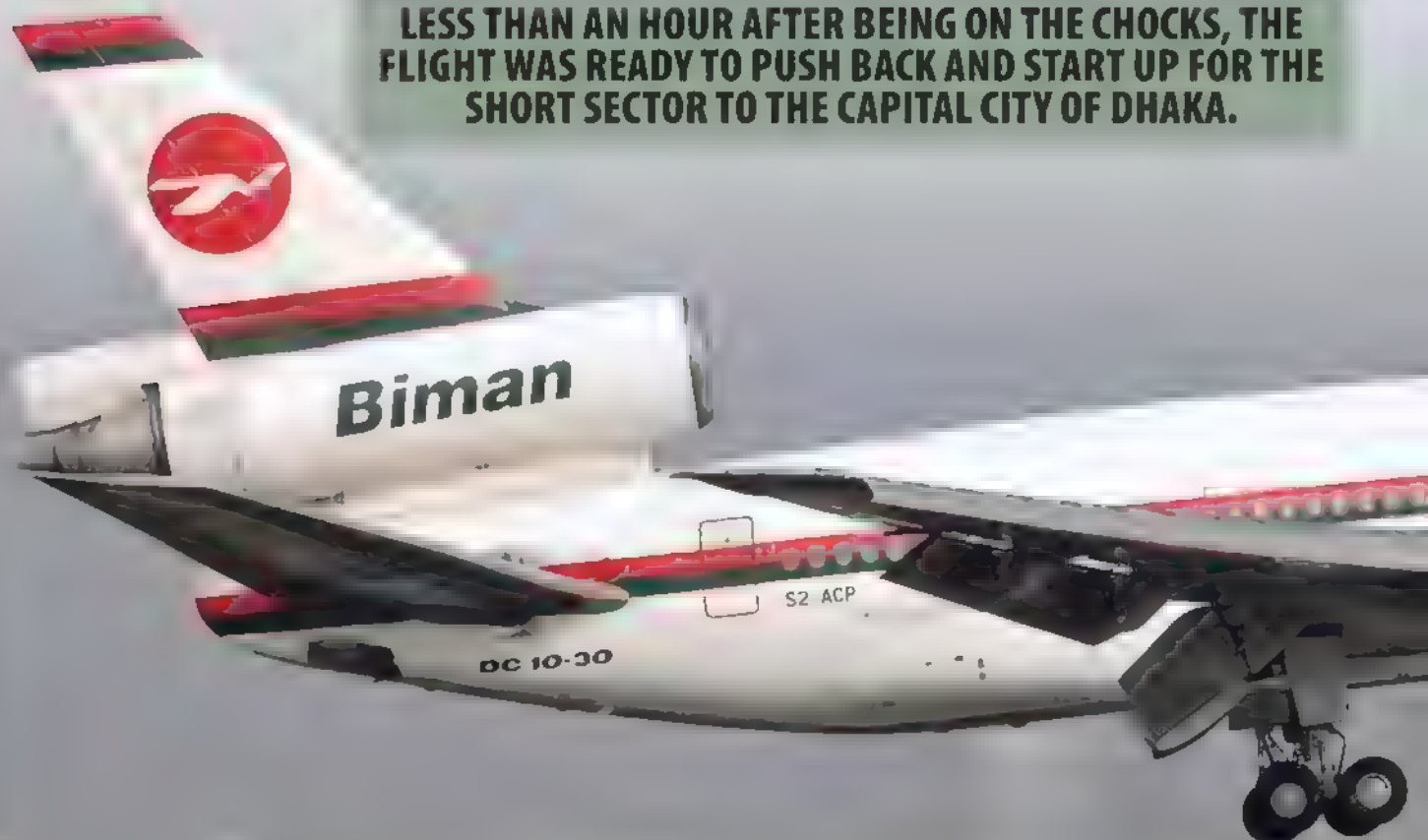
Once established in the cruise, the author returned to the passenger cabin to enjoy Biman's meal service. Although by now it was early morning, the 0200 scheduled departure put the

flight into a catering 'no-man's-land' of what to provide as food. However, the tasty curry (chicken or lamb) with a bread roll, a small dessert, tea, coffee, water, or cola was perfectly appropriate to the hour – and apparently enjoyed by all.

The flight continued over India with broad daylight now streaming through the large windows, with passengers chatting in groups, sleeping or reading. Interior noise at the front of the aircraft was simply the hiss of the slipstream, accompanied by the growing distant thunder of the engines as one walked aft, with the number two (centre) engine invisible above the heads of the cabincrew who were busy selling the last



**LESS THAN AN HOUR AFTER BEING ON THE CHOCKS, THE FLIGHT WAS READY TO PUSH BACK AND START UP FOR THE SHORT SECTOR TO THE CAPITAL CITY OF DHAKA.**





of the Duty-Free in the cavernous rear galley. Company playing cards, alarm clocks and good-quality Wooster-style snap-together models of Biman DC-10s and A310s were available. For posterity, I bought one of each!

After four hours, the roar of the engines died away as the aircraft started its descent, becoming for a short time a huge metal glider. Landfall was made over the beach at Faujdarhat, famous as the graveyard for many of the world's biggest ships. Literally hundreds of old liners could be seen – supertankers, ferries and hulks in various states of disrepair and deconstruction, some already half submerged, some capsized – all doomed.

Seatbelt signs on, cabin checks complete and announcements in Bengali followed. The aircraft replied with thumps and whirring sounds as the slats and flaps were extended and the gear came down. The countryside was lush and green, but obviously flood-prone; the clear reflection of the sun tracking across

At Chittagong a new load of 171 passengers embarked for the short hop to Dhaka. (Sam Chui)

Left • The Douglas DC-10 has a large galley area at the rear of the aircraft. (Sam Chui)

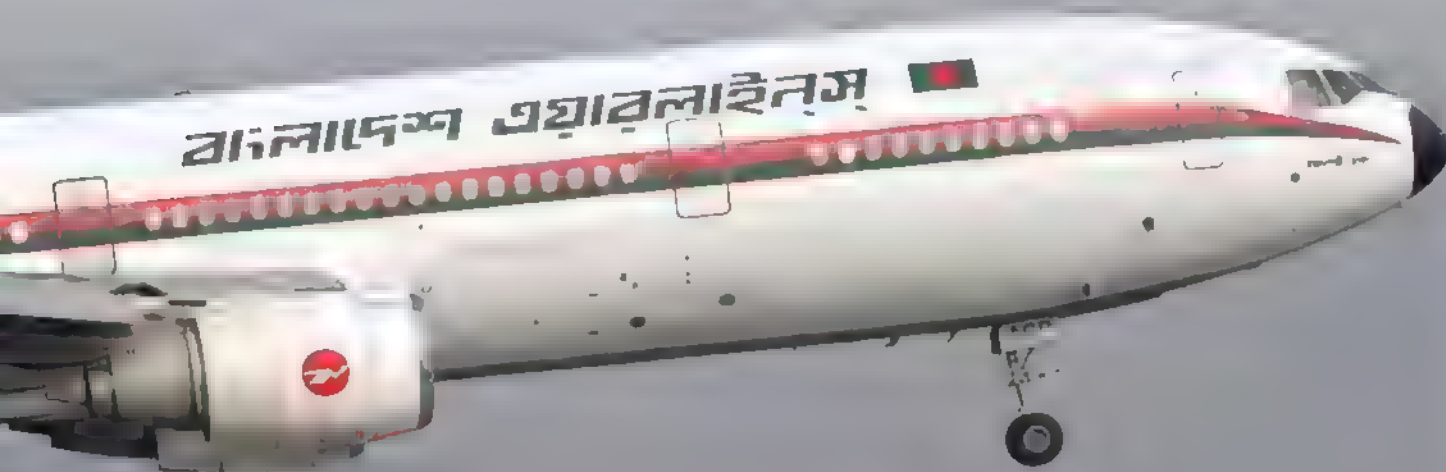
One of the aircraft's active sisterships – again an ex Singapore example. (Sam Chui)



wet fields and countryside. Crossing over the airfield fence, then tarmac, the DC-10 settled with an extended rattle onto Runway 05 at Chittagong Shah Amanat International Airport. With a long roar of reverse thrust it slowed, but rolled to the end, turned around and backtracked to the mid-field turn-off, before taxiing to the recently refurbished terminal.

### Chittagong - Dhaka

During the turnaround, the pilots invited our small group onto the tarmac to join them for the walkaround, during which pictures were taken and the aircraft inspected at close quarters. Also on the ramp were a few colourful aircraft from Bangladesh's independent carriers >>



## Aircraft History

Douglas DC-10-30, S2-ACQ (c/n 46993) was manufactured at Long Beach, California in October 1978 and delivered to Singapore Airlines as 9V-SDB a month later. It was then sold to Biman Bangladesh in August 1983. Internally, it is configured with 130 seats in Business Class and 1244 in Economy.

Unlike more modern aircraft, the Douglas DC-10 has two pilots plus a Flight Engineer, who has a large instrument panel on the right hand side.



– a McDonnell Douglas MD-80 of GMG Airlines and a Bombardier Dash 8 of United Airways.

Due to the relatively cheap price of jet fuel in the Persian Gulf, the aircraft had departed Abu Dhabi with full tanks, so topping up in Chittagong was unnecessary. A total of 171 passengers left, and a similar load joined – again filling the aircraft. Less than an hour

The city sprawled beneath in hazy sunlight as the final checklist was completed. Seat belt signs on, spoilers armed, flaps 35-35-green-light. Approaching the runway, the autopilot was deselected and the big jet was in the hands of the Captain. Final heading corrections to the centreline were made before 'TWO HUNDRED' came from the recorded voice of the radio altimeter, then 'ONE HUNDRED', as we skimmed over fields, a dirt road, two boys and a bicycle before crossing the threshold of Runway 14. Power off, and just 23 minutes after lift-off from Chittagong, the aircraft settled gracefully onto the Dhaka tarmac. The spoilers deployed and the Captain reached forward to grasp the reverse-thrust levers, creating a muted roar and deceleration. The First Officer called 80kts and the reverse thrust was dispensed with. Decelerating further, ground steering was used to taxi to the far end of the runway, before turning left onto the taxiway that would lead

to the terminals at the heart of Biman's route network. Welcome to Shah Jalal International Airport.

Parking was among the typical widebodies spaced around the seven jetbridges: a Saudi Arabian Airlines 747, plus 777s from Thai and Qatar. With a heartfelt farewell to the cabincrew and pilots who had made the journey so memorable and worthwhile, the author then walked into the attractive and architecturally distinctive terminal to find a well-staffed transit desk where the boarding cards for the next flight could be printed – a Biman 737 to Kathmandu, but that is another story!

How long will Biman's ancient *Vimana* continue to fly? Everyone in the airline has a different answer – weeks, months, years? Anyone who wishes to fly on the type before its retirement should waste no time in booking a ticket to a relatively undiscovered country, with an airline that will capture your heart, aboard an aircraft that easily defined a bygone era. **EW**

**THE SPOILERS DEPLOYED AND THE CAPTAIN REACHED FORWARD TO GRASP THE REVERSE-THRUST LEVERS, CREATING A MUTED ROAR AND DECELERATION."**

after being on the chocks, the flight was ready to push back and start up for the short sector to the capital city of Dhaka. This second and final leg was so short that the cabincrew did the drinks service – handing out over 300 boxes of juice of a local orange confection – during the taxi instead of the flight.

Despite the full load of passengers and bags, the DC-10 roared purposefully into the cool air of the Bengali morning and up to 16,000ft (4,877m) for the final 142 miles (228km) of the journey.

The author was again invited to the flightdeck – this time for the approach and landing. The three flightcrew were working their way through the arrival procedures – checking the local weather, resetting the altimeters, setting elevator trim to match the correct weight and balance, navigating the Dhaka airspace, slowing the aircraft down and configuring for landing. Slats out first, then flaps 15-22-35 (progressively), and finally gear down.



The airline also flies two Boeing 737-800s, three Airbus A310s, and four vintage Fokker F-28 Fellowship.



# Thomson. Titan. Tailor-made service. That's Avtrade to a 'T'

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Sebastian Schmitz reports from Chinggis Khaan International Airport to witness how the facility is coping with the nation's rapid economic development.



The airport is surrounded by mountains on its southern and eastern sides, as this image of its air traffic control tower and fire station shows.

Mongolian Airlines, the government-owned national carrier, has its headquarters just opposite the main terminal and uses the airport as its home base. It operates an all-Boeing fleet of 737-800s and 767-300s, and connects Chinggis Khaan International to Asian hubs including Beijing (which has up to two daily links), Seoul

(six rotations a week) and its newest destination, Hong Kong (two links a week). Last summer, MIAT offered four-times-a-week non-stop flights to Berlin for the first time; not being economical outside the peak season, they are reduced to twice a week and routed via Moscow.

In 2008, MIAT withdrew all its domestic services, choosing to operate >>



**"ALONGSIDE STRONG ECONOMIC GROWTH, THE NUMBER OF INTERNATIONAL VISITORS (BOTH FOR BUSINESS AND LEISURE) IS ALSO INCREASING."**



# Chinggis Khaan

INTERNATIONAL AIRPORT

## MONGOLIA'S GATEWAY TO THE WORLD

Mongolia used to be associated with endless open steppe, stunning scenery and nomadic people riding around on horseback. But this central Asian nation has undergone rapid development in recent years - a boom in natural resources exploitation has led to it becoming one of the world's fastest growing economies. Alongside strong economic growth the number of international visitors (both for business and leisure) is also increasing, despite road connections between major towns and cities being poor or even non-existent. In a country as large as Mongolia - it's the nineteenth largest



The view from the generous car park in front of the main entrance to Chinggis Khaan International Airport - on the first storey is the departure hall, with the arrivals hall located on the ground floor

land-mass on the planet - flying has become the only viable option.

The nation's main airport, Chinggis Khaan International (ULN/ZMUB), is located around 11 miles (18km) west of Ulaanbaatar, the country's capital and most important city. Opened for commercial flights in 1961, the facility was known for a long time as Buyant-Ukhaa International Airport, after a town located nearby. It was

renamed Chinggis Khaan (*Genghis Khan*) International on December 21, 2005 after the legendary Mongolian leader - the founder and Great Khan (emperor) of the Mongol - to celebrate the 800th anniversary of the establishment of the Mongolian state.

### Routes and airlines

The airport's main tenants are Mongolia's three leading airlines. MIAT

Mongolian national carrier MIAT operates two Boeing 737-800s on regional services from Ulaanbaatar's airport. Pictured here is 737-8AS, EI-CSG (c/n 29922), which it flies under a lease agreement from CITIG Capital Partners.



A statue of Chinggis Khan (Genghis Khan), the founder of the Mongol Empire, is displayed in front of the airport terminal.

Below • Chinggis Khaan International's domestic check-in area which often becomes very crowded during peak times as the airport reaches its design capacity limit.

Bottom • A short queue of passengers waiting to check in for an Eznis Airways service to Ulaangom, a city located in the north-west of the country, 75 miles (120km) south of the Russian border.

Bottom right • A Saab 340B+, JU-9907 (c/n 340B-425) of Eznis Airways taxis to its parking stand at Chinggis Khaan International Airport following a flight from Murun in northern Mongolia.

Bottom right • The waiting lounge in the international terminal is functional but not particularly modern-looking. However, there are several shops and a café where passengers can spend time before their flights depart.



international links only; its derelict fleet of Antonov An-24s remain on the ground at Chinggis Khaan International as a reminder of those times.

Today, two rival carriers have taken over these routes. Aero Mongolia and Eznis Airways share the domestic market, both flying a limited number of regional rotations. Aero Mongolia has a fleet of Fokker 50s; it also briefly flew two Fokker 100s on routes to China, but both have since been retired. It's recently shrunk back its network to just six domestic and two international destinations; Hohhot in China and Irkutsk in Russia.

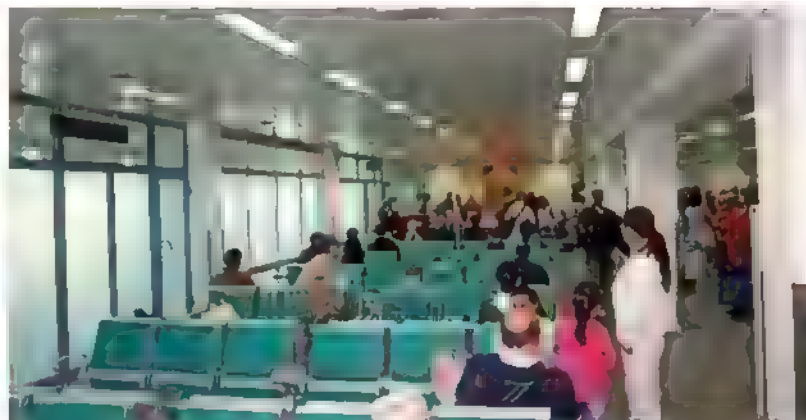
Meanwhile, Eznis Airways, a new private Mongolian carrier (see *Airliner World*, November 2011, pg 42-48), flies to nine domestic cities year-round and a further two on a seasonal basis. Its fleet of Saab 340s has recently been complemented by two ex-Lufthansa CityLine BAE Systems Avro RJ85s.

Apart from scheduled flights, Eznis also flies regular charter services for mining companies operating in areas of southern Mongolia that are not easily accessible with other forms of transport. Like Aero Mongolia, Eznis currently flies two international routes: to Hailar in China and Ulan-Ude in Russia. The

airline, which is looking to introduce additional rotations to China, Russia and Kazakhstan, is also due to open its own maintenance hangar at Chinggis Khaan International, with construction already underway when the author visited the facility last August.

During the summer, the peak season for most tourists visiting Mongolia, flight frequencies are increased on MIAT's regional services across its eastern Asia network. The carrier also operates summer-only routes to Tokyo/Narita with four return services a week, and twice-a-week to Osaka/Kansai. With outbound tourism also growing, MIAT now offers charters, with Hainan Island (China) and Thailand among the most popular destinations. Alongside MIAT, Aero Mongolia and Eznis Airways based at the airport, a smaller, non-scheduled airline, Blue Sky Aviation, operates charters from here using Cessna Caravans on flights across Mongolia.

**"NOW THAT THE CURRENT FACILITY HAS REACHED ITS DESIGN LIMITS (AT LEAST DURING PEAK HOURS), A NEW AIRPORT IS BADLY NEEDED TO HELP KEEP PACE WITH THE COUNTRY'S IMPRESSIVE ECONOMIC GROWTH."**







### International Airlines

Airlines operating into Ulaanbaatar include Aeroflot, which offers thrice-weekly rotations to and from its Moscow hub using 767s in the summer and Airbus A320s during the winter. The Russian flag carrier flies the services under a codeshare agreement with MIAT, both companies' flight codes appearing on tickets and departure boards. The busiest international route from Chinggis Khaan International is to Beijing, with MIAT flying twice daily to the Chinese capital and Air China operating a daily afternoon link, usually with a 737-800.

Other companies flying to Ulaanbaatar

include Korean Air with a four times weekly A330-300 return flight from its hub in Seoul (increased to six timeweekly links in the summer months); and Tianjin Airlines, which offers twice-weekly rotations using its Embraer 190s to Hohhot and to its home base at Tianjin.

### Difficult Topography

While Ulaanbaatar's single paved Runway 14/32 (there is also a shorter, grass runway: 15/33) is long enough at 10,170ft (3,100m) for all aircraft types to use, it does have one main major limitation – the airport is surrounded by mountains on both its southern

Above • Taxiing towards the terminal after a flight from the South Korean capital, Seoul, is Boeing 767 3W0ER, JU 1011 (c/n 28149), one of two the national carrier MIAT operates on its long-haul routes.

Below right • Aeroflot flies thrice-weekly flights to and from its hub in Moscow, using Boeing 767s in the summer and Airbus A320s during the winter. Here, 767 36NER, VP-BAY (c/n 30110), is prepared for its return journey back to the Russian capital.

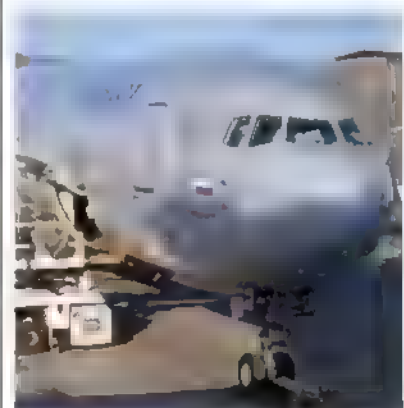
and eastern sides, so airliners are only permitted to land and take-off in one direction: towards the north-east. As a result, movements are often hampered by crosswinds.

Since Ulaanbaatar is the only facility in Mongolia with aircraft maintenance facilities, pilots of domestic services especially will sometimes try to get their aircraft back here even if weather conditions are marginal, which can make for some interesting landings. For international services with bigger airliners, there are no realistic alternative airfields within Mongolia; the nearest diversions are either Irkutsk or Ulan-Ude in Russia. >>



Left • In 2008, MIAT withdrew all its domestic services; its derelict fleet of Antonov An-24s remain on the ground. Also found here is former Mongolian Government An-24, BNMAU-6807.

Below • Aero Mongolia is one of two carriers operating domestic services from the airport; here a pair of its Fokker 50s, JU-8251 (c/n 20251) and JU-8258 (c/n 20258), wait for their next passengers.



## The Passenger Experience

Arriving and departing from Ulaanbaatar as an international passenger is a pleasant experience. Depending on traffic (which can be very heavy in and around the city centre) the airport is around half-an-hour's journey away. The single terminal building is divided into domestic and international sections. Opened in 1986, it has seen several upgrades in recent years, but orientation for passengers is not always easy and the layout might be described as awkward. Arriving passengers find themselves at the ground level after picking up their bags and clearing immigration and customs. Their exit leads directly to a car park where taxis and buses wait for passengers.

Departing international passengers check-in for their flight on the first floor and stay on this level until boarding. But domestic travellers use a separate boarding area on the ground level from where they are taken to their aircraft by bus. Immigration and customs are usually quite swift, leaving passengers time to explore what's on offer in the handful of shops beyond the immigration area. A comfortable café offers a choice of drinks and snacks. For boarding, international passengers use a central corridor leading to one of three airbridges for waiting aircraft.

## A New Airport for Ulaanbaatar

With the economy of landlocked Mongolia one of the fastest-growing in the world, and the country's demand for both domestic and international



Right • One of the more unusual visitors at Ulaanbaatar was this Learjet 35A, D-CCCB, which belongs to DRF Luftrettung, the German air rescue organisation.



Below right • Preserved in front of the terminal is this Ilyushin Il-14, MONGOL 104 which appears to be excellent condition.

Below • Aero Mongolia retired its Fokker 100s from service several years ago; during the author's visit the last one was being prepared for its final flight to the US for scrapping.



Bottom • Close to MIAT's maintenance hangar is this interesting line-up of six stored Antonov An-2s, some of which have seen better days.



air travel growing rapidly, a functional and modern airport for the capital is imperative. Now that the current facility has reached its design limits (at least during peak hours), and given its runway and weather limitations, a replacement is badly needed to help keep pace.






Indeed, work on a new airport is already under way and it's due to be completed in 2015. Located in a valley 34 miles (54km) to the southwest of Ulaanbaatar's city centre, it will have

two runways and passenger capacity will be almost three times that of the current facility's 600,000 per annum. It will also offer more reliable flights even during the harshest of winter conditions. Until the new airport opens, passengers flying to Ulaanbaatar will still have to continue using Chinggis Khaan International Airport. Nevertheless, even during the busy peak periods, they will still find it a rather pleasant gateway into Mongolia. **✈/1/4**



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## THE CENTRE SPREAD

APRIL 2012

Just four months after acquiring eleven Embraer 190s, Brazilian carrier Azul has firmed up ten more of its options for the type

Photo: Embraer







# EARLY DAYS OF AIR TRAVEL

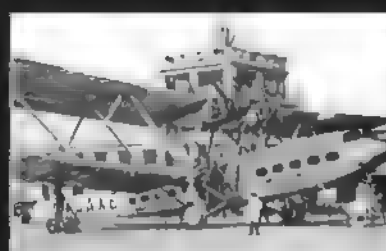
Scott Henderson recalls the remarkable road we traveled leading to the development of a craft that moved us into the improbable, from the early days of Zeppelins to the first jets of the 1950s.



## From the Inside

**T**he Zeppelin LZ 7 *Deutschland* of 1910 was the first civil aircraft to carry passengers in true comfort, although it did not operate scheduled services until after World War One. This pioneer aircraft has been followed in service over the last 100 years by more than 180 different types of airliner, from the first

piston-engined biplanes of the 1920s and 1930s, to the post-war monoplane airliners, helicopters and flying-boats powered by propellers, and then on to the jet age of the 1950s. Soon the majority of aircraft were, and continue to be, pure-jet, with the propeller mostly appearing in turboprop form fitted to smaller twin-engined airliners.



Main - View aft from the front of the forward saloon of a Heracles class HP45.

Inset - Imperial Airways HP45 *Heracles*. (Ken Collection)



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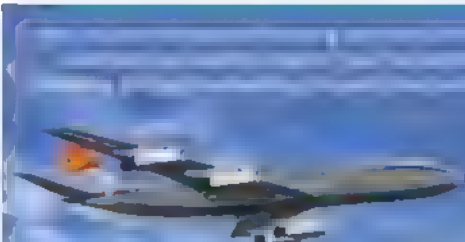
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The first passenger aircraft was the Delag Zeppelin LZ 7 *Deutschland*, which first flew on June 19, 1910. It was 485ft 6in (148m) long and had seating for 20 passengers. It was powered by three 120hp engines with a top speed of 37mph (60km/h).  
(Luftschiffbau, Zeppelin)

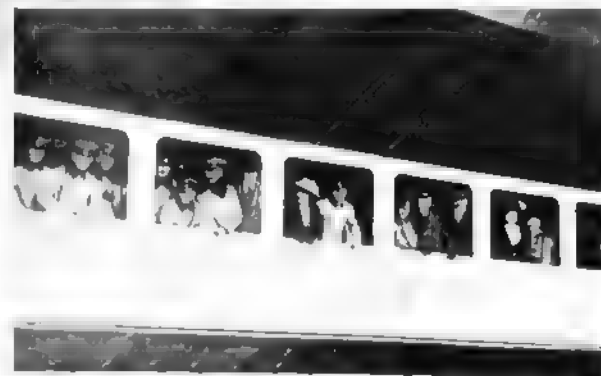


The passenger gondola of the *Deutschland* with windows open.  
(Luftschiffbau Zeppelin)

### Delag Zeppelins

The first passenger-carrying aircraft were rigid airships constructed at Friedrichshafen by Luftschiffbau Zeppelin GmbH. They were built for its subsidiary Deutsche Luftschiffahrts AG (Delag), which was founded at Frankfurt-am-Main on November 16, 1909, to operate passenger flights and train Zeppelin crews. Delag was the first airline and its initial Zeppelin was the

Type E LZ 7 *Deutschland*, which flew on June 19, 1910. It went into service on June 28, but was written off on its maiden voyage due to bad weather and poor airmanship. *Deutschland* was 485ft 6in (148m) long, powered by three 120hp Daimler engines, had a 681,574cu ft (19,300m<sup>3</sup>) gas capacity and a maximum speed of 37.35mph (59.5km/h). Beneath its hull it had a tram-like cabin for 20 passengers.



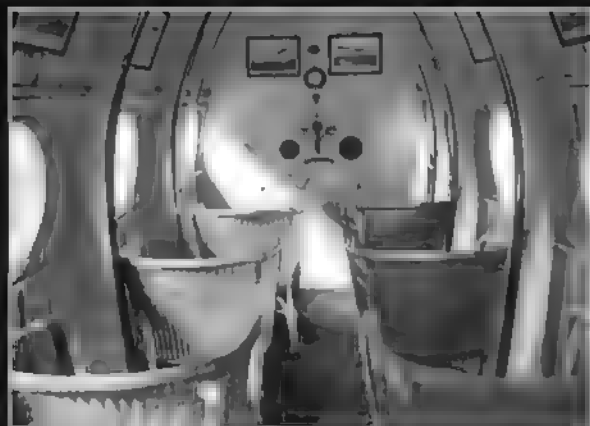
### Vickers Vimy Commercial

In 1917 the UK's Air Board asked Vickers to produce a bomber to the same specification as the Handley Page O/400. It was designed in four months but was too late to see active service. Named Vimy, this large twin-engined biplane gained a place in history when one made the first direct air crossing of the North Atlantic and another made the first flight from England to Australia. Two others were engaged in the first flight to South Africa.

Following the Armistice, Vickers looked to the civil market and decided to build a civil Vimy with new fuselage for passenger carriage. This was the Vimy Commercial, which first flew on April 13, 1919. It retained the wings, tail unit, engines and undercarriage of the original but had

a deep forward fuselage of upright oval cross-section completely clear of any internal structural obstructions. It was a plywood monocoque structure of generous proportions, with circular windows on each side, while on the port side at the rear of the cabin was a narrow opening closed by a roller blind. The cabin windows were soon changed to a rectangular shape and a new entry door was fitted. This was hinged at its base and incorporated steps, the first example of airstairs.

A total of 40 Vimy Commercials were exported to China but it has been reported that many of these were never uncrated. In the UK, the best known example was G-EASI 'City of London' delivered to S Instone & Co (The Instone Air Line) which became in 1924, a constituent of Imperial Airways to which the Vimy Commercial passed.



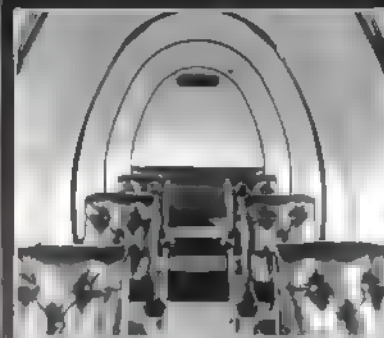
View forward in the cabin of the prototype Vimy Commercial.

It became a freighter and was finally withdrawn in 1926 but its cabin was used as a summer house until 1935. The Vimy Commercial had a maximum speed of 98mph (157km/h) and a range of 450 miles (725km).

One of the best-known airliners of the 1920s was Instone Air Line's Vickers Vimy Commercial 'City of London', seen here taking off from Croydon.



Looking aft in another Vimy Commercial, with improved seating.





## Armstrong Whitworth Argosy

The Argosy was an important aeroplane in terms of its advanced range capabilities although only seven were built. It was a large three-engine monoplane originally designed for Middle Eastern routes but it was considered suitable for European services and three were ordered in 1925. The type first flew in March 1926 and went into service in July with Imperial Airways between London and Paris. The cabin, which was 29ft long (8.84m), 4ft 6in (1.37m) wide and 6ft 2in (1.9m) high, had a wooden floor and walls lined with fabric. There were 20 forward-facing wicker seats, with containers for sick bowls beneath, and windows that opened and stretched the length of the cabin. In May 1927 Imperial Airways introduced the Silver Wing London-Paris service. For this, the Argosies were given improved interiors with 18 cushioned seats with armrests, curtained windows and a buffet. A steward was carried for the first time on British aircraft.

From October 1927, Imperial Airways used the type on the London-Paris route with a 2hr 30min schedule and £9 return fare, and included the services of a steward and a bar. Three more improved aircraft were ordered in 1928, and in early 1931 two were transferred to Cairo to operate the Cairo-Khartoum sector when the first stages of the service to Cape Town began. The last Argosy was used for joy-riding at Blackpool by United Airways in the summer of 1936.

An 18 seat Argosy, with steward and buffet, as used on the Silver Wing London-Paris service. This one had improved seats and life-jackets above the windows.



Imperial Airways' Armstrong Whitworth Argosy 'City of Glasgow' (Charles E Brown)



## Junkers G31

In 1928 Luft Hansa began to take delivery of a fleet of Junkers G31s. These had the same three-engine low-wing monoplane layout and corrugated metal skins as the G23 and G24 but, unlike the earlier aircraft, had twin fins and rudders. The cabins were divided into three sections by semi-bulkheads, had full-length luggage racks and the windows could be cranked open. Normal accommodation was for 15 passengers. A steward was carried and the G31s were probably the first Luft Hansa aircraft with meal service. The cabin was 6ft 10in (2.1m) wide and 6ft 2in (1.87m) high and could accommodate sleeping berths or stretchers. There was a lavatory at the rear of the cabin.

Meal service in a Luft Hansa Junkers G31.

Luft Hansa's Junkers G31 Westmark at Schiphol Airport, Amsterdam. In the background are a Swedish Air Lines' Junkers G23 and Luft Hansa Fokker-Grulich F.III. KLM



## Junkers Ju 52/3m

One of the best known pre-war European transport aircraft was the much loved Junkers Ju 52/3m three-engined low-wing monoplane, which was built in greater numbers than any other European airliner. Total production has been reported as 4,835 but some sources have quoted over 5,000. However, this outstanding aeroplane began as a single-engined freighter and the first five were built in this form. This original type first flew in October 1930 and the three-engined version made its debut in April 1932. The Ju 52 followed the configuration and structure of the earlier Junkers transports and was the last to have the well-established corrugated metal skin.



The Junkers Ju 52/3m was almost certainly the most widely used European transport aeroplane of the 1930s. Part of Lufthansa's large Ju 52/3m fleet is seen at Tempelhof Airport.



The cabin of a Ju 52/3m looking aft.

There was normally accommodation for 15 passengers, with six single seats on each side and a triple seat aft. Although the cabins were well appointed, the aeroplane was noisy.

Ju 52/3ms were widely used by European airlines; Lufthansa had 76 at the end of 1940, and some twin-float versions served the Norwegian coastal

route to the Arctic. Others were used by Swedish Air Lines and carriers in South America. Lufthansa still has one example, used for special occasions; there is one in South Africa and others are flying in Switzerland. In addition to its great contribution to commercial aviation, large numbers served with the Luftwaffe, including the invasion of Crete.

## Handley Page HP42

In the late 1920s, Imperial Airways, ordered eight large airliners for its European and Empire routes. Initially there were four HP42 Hannibals for Empire routes and four HP45 Heracles for Europe. The first to fly, on November 14, 1930, was G-AAGX *Hannibal*. It entered service on June 11, 1931 on the London-Paris route but was transferred to Egypt from where the type worked to Kisumu in Kenya and Karachi then in India.

The *Hannibal* had two passenger cabins (called saloons at the time) located as far as possible from the wing-mounted engines. The cabins were about 8ft (2.4m) wide with the rear cabin having 12 or 14 seats and the forward cabin six or ten. On the starboard side between the cabins were mail and baggage holds and on the port side a lavatory, bar, steward's seat and cabin-luggage hold. Some of the seats, all in pairs, faced across tables on which full meals were served. The windows were curtained and above them were light-luggage racks. The HP45s and 42s were almost identical apart from interior accommodation. The Heracles went into service on the London-Paris route on September 11, 1931, and was at that time probably the most comfortable of all airliners, the two saloons being comparable to Pullman Cars. The rear cabin had 18 or 20 seats and the forward cabin 16 or 18. All

The forward cabin of a Handley Page HP42 Hannibal class.



*Hannibal*, the first of eight Handley Page HP42 and HP45 biplanes built for Imperial Airways.



seats were in pairs and chintz-covered. Between the cabins on the starboard side was a baggage hold and to port were two lavatories and the steward's pantry.

The only drawback was the low cruising speed of about 100mph (160km/h) but this allowed the stewards to serve five-course lunches and seven-course dinners on the London-Paris route. These biplanes had very short take-off runs and landed at a modest 60mph (96km/h).





One of the Avro Lancasterians used on North Atlantic services by Trans-Canada Air Lines, now Air Canada.

### Avro Lancasterian

The Lancasterian was a Lancaster bomber with the military equipment removed, passenger accommodation added plus a new streamlined nose and a new tail cone. It was first produced for a Trans-Canada Air Lines' North Atlantic service with ten seats and a range of 4,000 miles (6,437km). Its maximum speed exceeded 300mph (482km/h). By the time the Canadian aircraft were withdrawn in 1947, they had made 1,900 ocean crossings.

Several Lancasterians were made available to BOAC and in conjunction with Qantas they operated United Kingdom-Australia services. The Lancasterian initially had a very unusual layout. There were nine inward-facing seats along the port side. Three sleeping berths could be made up from these seats and another three could be let

right • View forward through the cabin of a Lancasterian. Avro



down to form an upper tier. Passengers could only see out of the starboard side.

It was the first British aeroplane capable of operating services across the South Atlantic and British South American Airways (BSAA) used 18 on services to South America. They had more orthodox accommodation for 13 with single forward-facing seats on each side of the cabin and two front seats facing aft. There were also two forward-facing seats at a higher level over the main spar.

The downstairs lounge of a Stratocruiser, looking forward.

### Boeing Stratocruiser

Boeing did not enter the competition between Douglas and Lockheed for a family of propeller airliners, but instead built the unique and, originally, luxurious Model 377 Stratocruiser. This aeroplane was a civil development of the B-29 and B-50 bombers and the C-97 military transport. It was a mid-wing, four-engine monoplane with full pressurisation. Its main deck was 78ft 6in (23.9m) long and the upper fuselage interior diameter was 10ft 4in (3.16m). Its 55 seats were in main, aft and forward cabins, the last two being separated by dressing rooms. One of the Stratocruiser's main attractions was a

A Boeing Stratocruiser of American Overseas Airlines.



lower deck lounge and bar reached by a spiral staircase from the main deck.

Stratocruisers could operate non-stop eastbound North Atlantic services but had to make refuelling stops on westbound flights. The type was introduced on April 1, 1949, by Pan American World Airways, although only 55 were eventually built. In Tourist-Class configuration, they could accommodate 86-89 passengers and in high-density layout it managed 112. So spacious was the aeroplane that a steward could walk in front of an aisle seat table to serve a window-seat passenger.



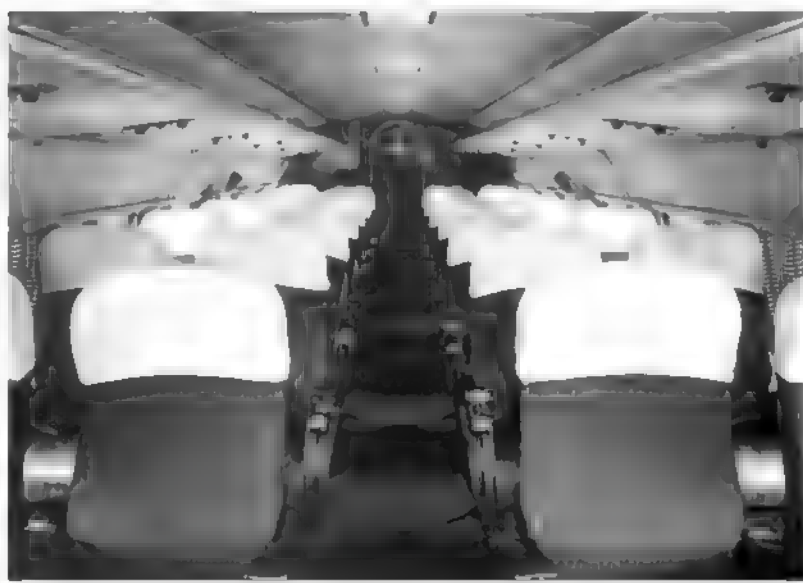
### de Havilland DH106 Comet

The Comet was the first jet-propelled airliner to fly and to enter passenger service. The first prototype flew on July 27, 1949, and the type entered service with BOAC on the London-Johannesburg route on May 2, 1952.

There was accommodation for 36 passengers despite the interior diameter of the cabin being slightly less than that of the Douglas DC-4. The Comet 1, as it became designated, brought dramatically reduced flight times and had very low level of vibration, but unfortunately three broke up in flight due to structural failure and the type was withdrawn in 1954. However, de Havilland and BOAC maintained their faith in the aircraft and modified Comet 4s were added to the airline's fleet in 1958. On October 4 that year, they operated the first North

Early Comets had square windows, which proved to be the source of the structural failures.

In the early Comets, there was accommodation for 36 passengers.



Atlantic jet services in each direction but with a refuelling stop on the westbound flight. The Comet 4 could accommodate 56 First Class passengers or up to 97 in high-density layout.

Developed from the Comet 4, next came the lengthened Comet 4B with clipped wings and without the piston fuel tanks. This version could carry 92 Tourist-Class passengers and was operated by BEA and Olympic Airways. The final development of the type as an airliner was the Comet 4C, which combined the Comet 4 wing and 4B fuselage. It could carry up to 101 passengers and entered service in 1960.



### Vickers Viscount

The Viscount was an outstanding airliner. Not only was it the world's first propeller-turbine passenger aircraft, it also achieved considerable export orders and 445 were built. The first variant was the V630 with 32 seats. It first flew on July 16, 1948, and, on July 29, 1950, operated the first ever propeller-turbine-powered passenger service, from London/Northolt to Paris/Le Bourget. It continued the London-Paris operation for a fortnight and then spent a similar period operating Northolt-Edinburgh services, the first domestic routes anywhere with turbine power.

Like all subsequent airline Viscounts, the V630 had four Rolls-Royce Dart propeller-turbines and an oval-cross

Above right - BEA's Vickers Viscount V701 'RMA Robert Falcon Scott'. Viscount 701s began the first regular propeller-turbine-powered services on April 18, 1953. (BEA)

Above - Looking forward in the Business Class section of the Viscount.

Passengers particularly appreciated the large windows of the Viscount.



section pressurised fuselage with low noise-level and almost no vibration. Developed from the V630 was the V700 with an increased wingspan and 7ft 4in (2.22m) greater fuselage length. The production version was the V701 and BEA ordered 20 (later 26) with five-abreast

seating for 47 passengers and the type entered regular service on April 18, 1953.

In the early days of Viscount operations, passengers used to stand pencils on end and coins on the edge of tables in flight as there was insufficient vibration to displace them. More appreciated by passengers were the 26in by 19in (66cm x 48cm) elliptical cabin windows. Following the V701 and other V700 series came the V800 with greater power and a 13 ft (3.96m) increase in length. It could accommodate 53 First-Class passengers, 63 Tourist-Class or 71 in a high-density layout. The Viscount V810 series, which was the last development, had uprated engines and seating for up to 75 passengers.





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The attractive cabin of a Boeing 707. There were passenger service units above each seat-row.

(THOMAS)

Above right - Pan American World Airways was the first customer for the Boeing 707, the first of the so-called 'big jets' (Boeing)



### Boeing 707 and 720

The first of what were known as the 'big' jets was the Boeing 707 and this fine aeroplane introduced entirely new and greatly improved standards to air travel. The 707 was a low-wing monoplane with four turbojets suspended from the wing on pylons. The internal diameter of the upper fuselage was 11ft 5in (3.47m) and the first variant, the 707-120, could carry up to 179 passengers. Seating was in triple units each side of a central aisle and there was a forward lounge. There were full-length baggage racks and beneath these were passenger units with

call bells, lighting and ventilation and drop-down emergency oxygen masks. Large ceiling lights could be dimmed at night and represented a deep blue sky with stars. Pan American World Airways ordered 20 and began a world airline race into the jet age. It introduced 707s on its New York-Paris service on October 26, 1958.

The original aircraft were not designed to have a North Atlantic non-stop range, but this was achieved by the larger and heavier 707-300. Boeing built 725 for commercial customers including a number of specialised types, such as the 707-138 for Qantas. The 'B' models

with turbofan power had improved performance. So reliable was the type that some airlines scheduled daily long-haul flights while only possessing one aircraft.

There were also 154 examples of the scaled-down 720 and 720B, which was also a very fine aeroplane. It was supposed to be a short-haul aircraft, but the first one delivered to Pakistan International Airlines set an unbeaten world record by flying non-stop the 3,900nm (7,226km) from London to Karachi in 6hrs 43mins 51secs. Initial seating was for 165 Tourist-Class passengers.

The Aérospatiale-British Aircraft Corporation Concorde is the only supersonic transport to have been in sustained operation. It went into service in January 1976 and one made a New York-London flight in less than three hours. This British Airways' example had Singapore Airlines' livery on the port side. (All images Scott Henderson Collection unless stated)

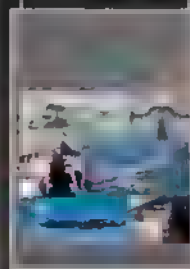


Below right - A British Airways' Concorde with original furnishings. (British Airways)

### Aérospatiale-British Aircraft Corporation Concorde

The Anglo-French Concorde supersonic transport is one of only two types of supersonic airliners built and the only one to continue in sustained service. It operated from January 1976 to November 26, 2003 and was used on North Atlantic routes by Air France and British Airways. This technically brilliant design had accommodation for 100 passengers, four abreast in two cabins, and cruised at Mach 2 with a top speed of 1,400mph (2,253km/h) and a maximum cruise level of 60,000ft (18,288m). The slender fuselage was mounted on a delta wing of complex geometry and there were four Rolls-Royce-Snecma Olympus turbojets in pairs beneath the wing. By mid-May 1967, airlines had taken options on 74 aircraft but eventually only Air France and British Airways took delivery and there were only 16 production aircraft.

This interesting story is based on information contained in the recently reprinted book, *Passenger Aircraft & Their Interiors 1910-2006*, written by John Stroud and edited by Scott Henderson.





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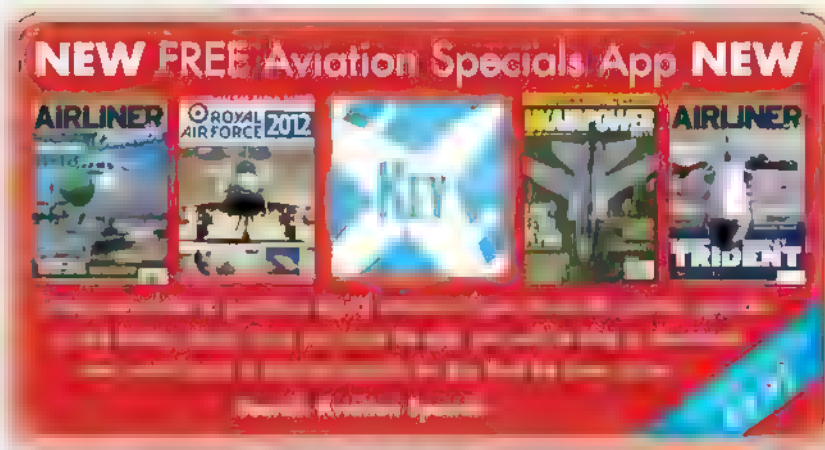
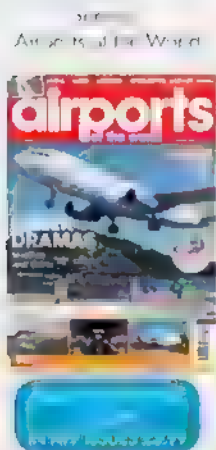


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# Air Macau

FLYING THROUGH TROUBLED WATERS





# 澳門航空

reports from Macau on how the city and its resident airline have recovered following the Chinese Government's approval of direct flights to and from Taiwan, after a 60-year suspension.





#### KEY FACTS

IATA code:	NX
ICAO code:	AMU
Call sign:	AIR MACAO
Founded:	1994
Hub:	Macau International Airport
Parent Co:	China National Aviation Corporation (Macau)
Website:	<a href="http://en.airmacau.com.mo">http://en.airmacau.com.mo</a>

Macau International Airport was opened to commercial traffic on November 9, 1995, with the Air Macau Company Ltd – which was established previously on September 13, 1994 – launching its maiden flights to Beijing and Shanghai.

The ownership of Air Macau was split between Air China's parent company, China National Aviation Corporation (CNAC) with a 51% holding, TAP Portugal (20%), Sociedade de Turismo e Diversões de Macau (STDM, 14%), Eva Air (5%) and the Government of Macau (5%), with the remaining 5% stake held by local investors. In reference to the city's heritage, the airline gave each of its jets both Chinese and Portuguese names.

From the first day of operations, Air Macau has had ambitious plans and its vision was to become a full-service carrier carrying passengers from mainland China to Taiwan via Macau, profiting from the

Air Macau Airbus A321, B-MAR (c/n 597), departs Taipei's Taoyuan International Airport on the short hop across the Taiwan Strait to its home base. (Airteamimages.com/Fokker Beaker)

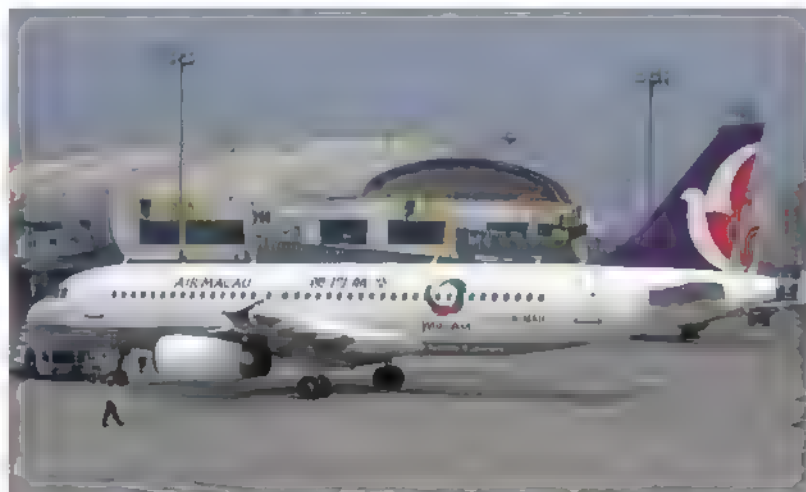
Air Macau operates flights to Asian capitals including Beijing, where one of its Airbus A320s, B-MAH (c/n 805), is seen here being pushed back from its gate with a full load of passengers. (Airteamimages.com/Andrew Hunt)

ban imposed by the Chinese Government in 1949, which effectively prohibited airlines from flying direct services between the mainland to its 'breakaway province'. The political status of the Republic of China (ROC), widely known in the West as Taiwan, has remained a problem for world politics for more than 60 years. The ROC took control of the island in 1945 when it ruled mainland China and claimed sovereignty over Outer Mongolia (now Mongolia) before losing the Chinese Civil War and relocating its government to Taipei in December 1949, the mainland becoming the communist-governed People's Republic of China.

Cathay Pacific had already benefitted from this situation for more than four decades, connecting passengers via its Kai Tak hub, so Air Macau was sure it could attract a considerable percentage of this traffic through its new and much

less congested gateway. Air Macau's first 'beyond' connection from Beijing and Shanghai to Taipei via its hub started on December 8, 1995. From that date the carrier gradually increased the size of its fleet and route network, adding additional Chinese cities, including Xiamen, Nanjing, Shenzhen, Haikou, Kunming, Guilin and Chengdu. Thanks to the Macanese airline, Chinese mainlanders could finally get to Taipei and Kaohsiung from any of the major cities using the company's growing network, with only a single aircraft change and a relatively quick and hassle-free transit at Macau International. Naturally the process also worked in reverse for Taiwanese travellers wishing to visit the mainland, with the airline also providing assistance to passengers in obtaining their People's Republic of China Entry Endorsement.

In its heyday, the Intra-Taiwan Strait







On February 5, 2012, the Air Macau freighter fleet was reduced to a single A300B4-600F when the carrier's second one, B-MAS (c/n 743), was returned to the lessor, ILFC. Here, its sole remaining example, B-MBJ (c/n 677), is parked on the cargo ramp at Macau International Airport. (All images author unless stated)

AIR MACAU FLEET				
Type	Reg'n	C/n	Delivered	Notes
A319-132	B-MAX	1758	Jun 2002	Rio Yangzi, Isf ILFC
	B-MAL	1790	Aug 2002	Rio Amarelo, Isf ILFC
	B-MAM	1893	Jan 2003	Lago Sol Lusa, Isf ILFC
	B-MAN	1912	Feb 2003	Rio Huang Pu, Isf ILFC
	B-MAO	1962	Jun 2003	Rio Yaluzangbu, Isf ILFC
A320-232	B-MAH	805	Apr 1998	Ilha da Madeira, Isf ILFC
	B-MAX	928	Apr 2009	Development
A321-131	B-MAB	557	Dec 1995	Lotus, Isf ILFC
	B-MAF	620	Feb 1997	Acores, Isf ILFC
	B-MAG	631	Apr 1997	Ilha de Coloane, Isf ILFC
	B-MAR	597	Oct 2004	Kao Iang, Isf ILFC
	B-MAJ	908	Feb 1999	Farol de Guia, Isf ILFC. 4th East Asian Games cs
A321-231	B-MAP	1850	Dec 2002	Rio Das Perolas, Isf ILFC
	B-MAQ	1926	Feb 2003	Lago Tai, Isf ILFC
	B-MBJ	677	Jun 2008	Harmony, Isf ILFC

services generated more than 70% of Air Macau's revenue, flying up to 72 round-trips per week to and from Taipei and 28 round-trips to Kaohsiung. Since 2004, the carrier's Macau to Beijing rotation has been flown under a code-share agreement with Air China.

The booming economy of the Pearl River Delta region, has also increased demand for air freight providers. In 2002 Air Macau leased two Boeing 727-100Fs from Transmile Air Services and launched its own freighter flights between Taipei and Shenzhen via its Macau hub on October 7 of that year. This cargo route continued until 2006 when the two ageing aircraft were replaced by Airbus A300B4-200Fs, which in turn were replaced by -600RFs leased from International Lease Finance Corporation (ILFC), an arrangement that broadened horizons in terms of capacity and range.

**"IN ITS HEYDAY, THE INTRA-TAIWAN STRAIT SERVICES GENERATED MORE THAN 70% OF AIR MACAU'S REVENUE."**

Unfortunately, these developments occurred as the world economy was starting to take a different direction, and the airline would soon face a very abrupt change of fortunes.

At this point, its passenger fleet was standardised on the Airbus narrowbody family of A319s, A320s and A321s and had reached a total of 21 examples. In order to compete in the rapidly expanding low-cost sector, Air Macau created Macau Asia Express in 2006 with partner Shun-Tak Holdings, and was set

Air Macau Airbus A321, B-MAJ (c/n 908), received this special orange fuselage colour scheme to help promote the 4th East Asian Games held in Macau. Here it is departing from Hong Kong's Chek Lap Kok International Airport. (Airteamimages.com; olin Hunt)

to start budget flights serving mostly Chinese destinations. The subsidiary was to be managed independently; however, funding problems leading to a delay in delivery of its initial A320s. The carrier's problems eventually proved insurmountable and Macau Asia Express' Air Operator's Certificate was revoked a year later, before it had started flying.

### Fighting the Winds of Change

Air Macau has faced many challenges over the last few years. To start with, the 2003 Severe Acute Respiratory Syndrome (SARS) epidemic played havoc with the airline's business plans, as it did with many other Asian carriers, substantially reducing traffic figures during the outbreak period. It recovered quickly after SARS and re-established positive growth continuing until 2007 when its traffic figures reached a record high at Macau International Airport, having handled 5.5 million passengers.

A year later the global economic recession hit the Pearl River Delta, once again sending traffic volumes plunging to 4.1 million passengers in 2008. But that was merely the prelude to an even larger turn of events that would threaten the company's long-term future. In 2008 there was a significant thaw in tensions between the governments of China and Taiwan, resulting in the authorisation of a number of direct 'weekend charter' flights between the two countries. This new policy conflicted directly with Air Macau's primary business model. Things were about to get worse for the carrier when on August 31, 2008, China finally agreed to re-instate regular non-stop air services to and from Taiwan, effectively ending the 60-year ban, so ending the need for passengers to connect via Macau or Hong Kong.

Many Chinese carriers' established offices in Taiwan and wasted no time in starting direct flights between mainland Chinese airports and Taipei or Kaohsiung. Meanwhile, Taiwan-based China Airlines, Uni Airways and TransAsia Airways started reciprocal non-stop services as well, providing passengers with much quicker direct flights, lower fares and >>





Close-up of the forward fuselage of Airbus A319, B-MAL, named Rio Amarelo, with the logo and titles of the 4th East Asian Games, which were held in Macau during 2005. (Anteumimages)

A busy scene on the apron at Macau Airport, as Air Macau Airbus A321, B-MAR (c/n 597), heads for one of the two causeways that lead to the main runway.

more frequencies than ever before.

This fundamental change in travel policies radically modified the composition of the Taiwan-bound and originating traffic at Macau Airport to such an extent that it fell from 62% of total traffic in 2004, to as low as 40% in 2010, while its services to its Chinese mainland destinations also suffered a large decrease, falling from 33% to 24%. Fortunately, the growing appeal of Macau as a leisure and business destination, rather than a purely transit facility, has enabled it to survive. This change in emphasis has shifted to other Asian countries, gradually increasing from 5% to 36%, partly offsetting the substantial traffic decline from the lifting of the ban.

During a recent interview for *Airliner World*, Zheng Yan, Vice Chairman, Board of Directors and President of Executive Committee at Air Macau, highlighted the new strategies for survival that the company adopted in 2009 as result of the removal of the ban. He said: "Focusing on becoming the customer's airline of choice, by providing a constantly improving level of service that exceeds passengers' expectations in terms of punctuality as well as our onboard products, while at the same time minimising our cost structure, are the most important actions we are taking. We are also focusing on new markets, with further expansion in mainland China and north-eastern Asia also



planned. Like everywhere else, finding strong strategic partners is paramount," Mr Yan emphasised. The company has acted upon this by expanding its links with the 'big guys' sitting in Beijing. Air China, which originally held a 51% holding in the company through its parent CNAC, increased its stake to 80.86% in 2009, injecting \$63 million into Air Macau, while also establishing closer operational links.

The start of direct services between China and Taiwan had a near-devastating effect on Air Macau with passenger numbers dramatically dropping, necessitating a one-third fleet reduction from its highest level at 21, to 14. Since 2009, five of its Airbus narrowbodies have been flying under a

damp lease contract (including cockpit crews) with Air China, on the carrier's domestic routes across China. Aircraft utilisation has also improved as part of its restructuring, with an expected nine hours per day and per jet being achieved in 2011, compared to 7.8 previously.

It has also restructured its sales forces, as well as pushing forward its direct distribution channels, quickly investing and implementing B2B and B2C portals. Commercial co-operation is increasing; as well as its Air China partnership, code-sharing agreements have been forged with All Nippon Airways (ANA), Korean Air Lines, Philippine Airlines and Thai Airways International. All these efforts, coupled with an extensive cost-cutting exercise and alignment with industry





**"YET, DESPITE ALL THE CHALLENGES THAT LIE AHEAD, MACAU IS POTENTIALLY ONE OF THE MOST PROMISING FUTURE AVIATION MARKETS IN ASIA."**

negative effect on air cargo operations was mostly attributed to the full effect of the Cross-Strait direct cargo flights between mainland China and Taiwan that no longer needed to transit through Macau. Also, there was the impact of a formidable competitor a short distance across the Pearl River estuary – ten minutes flying time away: Hong Kong's purpose-built Chek Lap Kok Cargo Centre. Point-to-point cargo traffic from Macau, although still developing important links, is no longer justifying the large number of services that were available before the downturn. On February 5, 2012, the Air Macau freighter fleet was reduced to a single A300B4-600F when the carrier's second example, B-MAS (c/n 743), was returned to the lessor, ILFC, and was later re-delivered to Turkish operator ACT Airlines. Air Macau is still looking at expanding its cargo network and is looking at new opportunities such as Dhaka, Bangladesh as well as other Asian destinations such as Taipei, Shanghai, Singapore, Bangkok and Osaka.

Yet, despite all the challenges that lie ahead, Macau is potentially one of the most promising future aviation markets in Asia. Already the former Portuguese colony is visited by more than 25 million visitors each year, yet most of them reach the 'Las Vegas of the Orient' via

high-speed ferry services from Hong Kong and Guangzhou, rather than the city's pleasant and easy-to-use airport. During the interview with Mr Yan, he said he believed that between 4% and 5% of the potential Chinese market is currently being accessed and the rewards that lay ahead for Air Macau, as well as the airport and the city, are enormous. However, the big question is: how much time will it take decision makers in Beijing to leverage the city's considerable aviation potential? Also, much will depend on the success of forays into new regional markets such as India, while also increasing links and frequencies to existing destinations.

While the immediate future may not be easy, rapid growth of the local economy and the attractiveness of Macau as a tourist spot. A new enthusiasm and focus from a team determined to survive, may yet make Air Macau an Asian star. **WJW**

The author would like to thank Mr Zheng Yan, Vice Chairman, Board of Directors and President of Executive Committee of Air Macau and Ms Joy Gong Xiaozhuang, General Manager – PR & Advertising Division for their help in the preparation of this article.

best practice, finally led to it finishing 2010 in the black. Now with a new focus on serving regional destinations, and no longer reliant on Taiwan/Chinese traffic, Air Macau has been extending its reach, adding Hefei on the Chinese mainland and Singapore to its network.

Cargo is an aspect of its business that is still under strict analysis, because it has not yet returned to profitability. Macau Airport experienced a cargo traffic boom between 1995 and 2005, when total freight handled grew to 227,000 tonnes per annum, before quickly declining and then levelling off at 52,000 tonnes in 2009 and 2010. The

Above right - The main terminal at Macau International Airport, with its name in both Portuguese and Chinese, demonstrating the city's rich and diverse heritage.

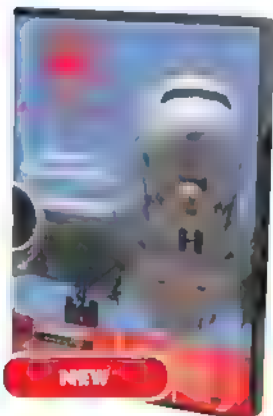
Air Macau standardised its fleet on the Airbus narrowbody A320 family. Here one of its A319s, B-MAX departs on another flight across the Taiwan Strait. Kwek Jia Tao



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Running time: 152 Minutes. Region-Free DVD.

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## Everts Air DC-6 DVD

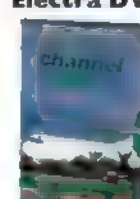


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# Skybus Isla

Jacob Little travelled to Land's End and sampled the short, 15-minute hop to the Isles of Scilly.

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**T**he Britten-Norman BN-2A Islander is an aircraft that captures the spirit of the rugged western coast of the British Isles perfectly. It could never be classed as an elegant aircraft, but has long ploughed the skies of some of the more remote areas of the world with remarkable poise and has done so whilst winning both pilots' and passengers' hearts. The author was lucky enough to experience Flight IOS002 on an Islander in September, travelling on the Isles of Scilly Skybus

from Land's End Airport (LEQ) to St Mary's on the Isles of Scilly (STM).

Arriving at Penzance railway station, the complimentary shuttle bus was waiting to pick up some of the passengers for the 7 mile (11km) trip to Land's End Airport. This is actually located near St Just, and has grass runways with a terminal, hangar facilities and space for five or six light aircraft. The Isles of Scilly Skybus operation shares the airport with MSH Flight Training, which operates a small fleet of Cessna 152s and 172s.

**PASSENGERS HAD TO STOOP TO GET INTO THE SMALL SEATS AT THE BACK - THIS CERTAINLY ISN'T A LARGE AIRCRAFT BY ANY MEANS!"**

Skybus operates both the Britten-Norman BN-2A Islander and the de Havilland Canada DHC-6 Twin Otter. (Airteamimages.com/Mark Taylor)

Always with a BN 2A Islander, G-BUBN after arriving from the islands on an earlier flight.

Two Islanders await their next flights at St Just.



# nder

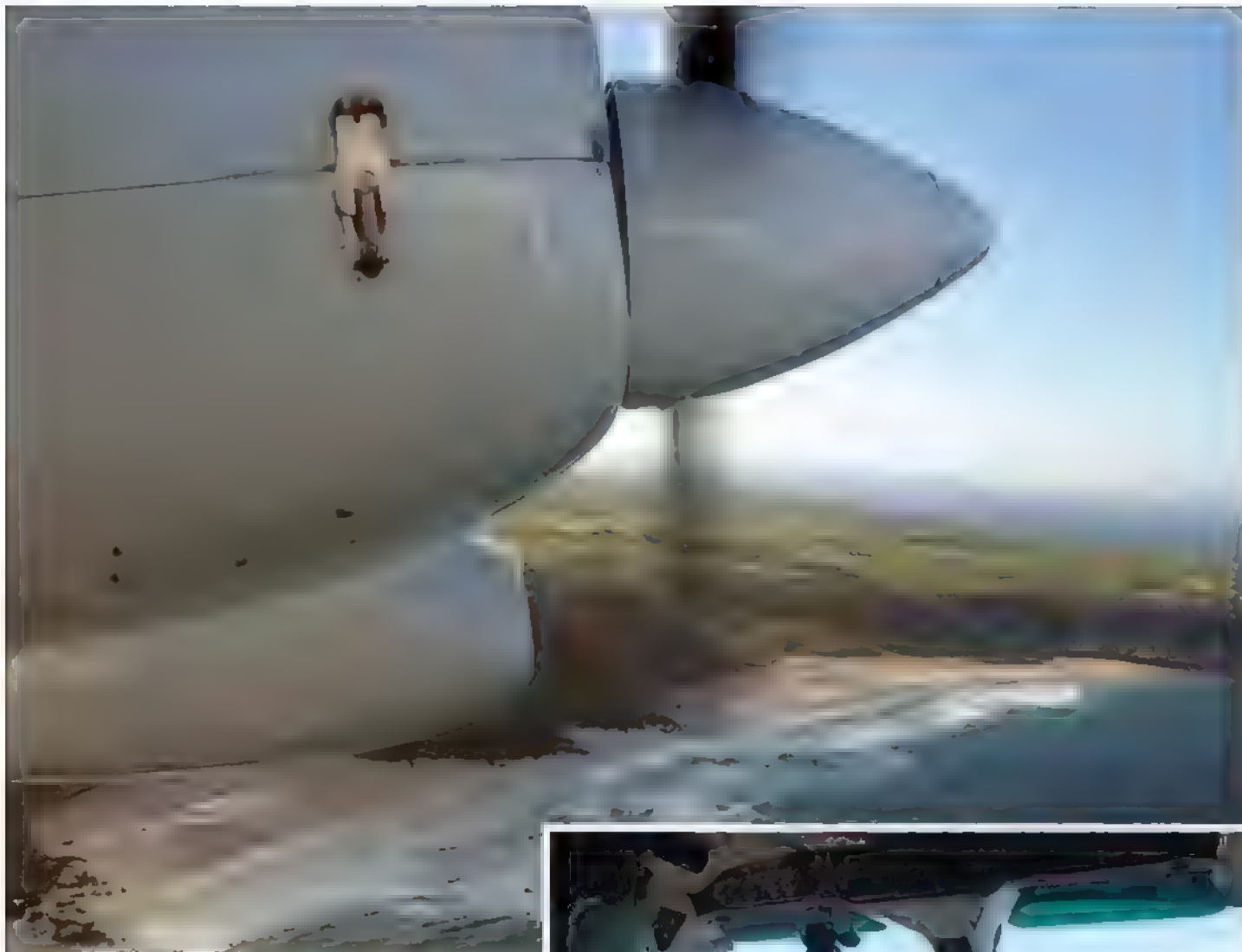
# G-CEWM

# www.sky



On busy summer days this makes for some busy radio traffic, with around ten Skybus flights plus private aircraft coming and going from nearby tourist areas such as Newquay – a 20-minute flight away.

The check-in area at the airport is situated immediately inside the main entrance. The basic facilities are totally different to those one is normally accustomed to with busy departure lounges, corporate style check-in desks and (sometimes) over-officious staff. The warm welcome of the local >>



employees set the tone for the rest of the trip. While outside, 'Christine's Café' affords views of aircraft airside – two Islanders (one of which, G-SBUS, was the allocated aircraft for the morning), a de Havilland DHC-6 Twin Otter and two Cessna 172s were parked on the airfield. After a safety presentation, ground staff escorted everyone to the Islander. Passengers have to stoop to get into the small seats at the back; this certainly isn't a large aircraft by any means! Luckily, the flight wasn't full, and all seats offered excellent views as well as the ability to see up front where the sole pilot was readying the aircraft.

The view over Sennen Cove – which highlights exactly how beautiful this journey is and what a treat it is when weather is on your side!

Climb out from Runway 25 at St Just was swift and very enjoyable with very little in the way of bumpy air.

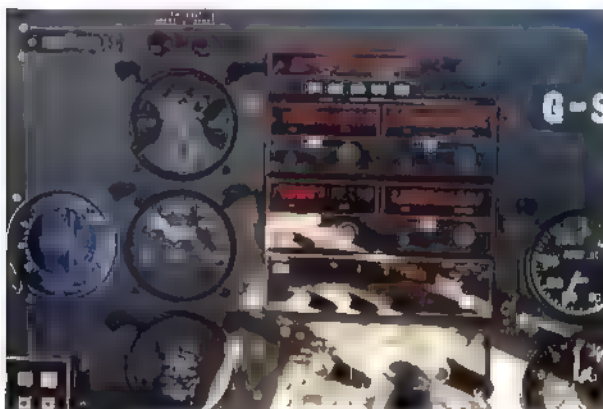
Land's End VOR is tuned into the secondary NAV radio, and VOR2 shows us pointing away from the VOR and heading west towards St. Mary's.



To unaccustomed travellers, it can be a surprise just how quick the pilot's pre-flight checks can be on a (relatively) small aircraft. After an external inspection and a quick control surface, magneto and avionics check, the engines were started – and the aircraft was soon trundling and bumping across the grass for the departure from Runway 25. Following a short ground run, the flight was airborne very quickly, the smooth air and excellent visibility affording fantastic views port-side to nearby Sennen Cove. Maintaining a climb rate of 900 feet per minute and about 120kts ground

speed, the vibration from the twin Lycoming engines (producing around 300 horsepower each) brought life into the whole aircraft. In many ways, this is flying as it should be – basic, hassle-free, exhilarating and exciting. The white horses of the waves below looked a long way off – even at the transit height of only 1,000ft – a level that was reached in very little time at all.

With only a 15-minute planned flying time, the descent soon commenced and was followed by a virtual straight-in approach to Runway 32 at St Mary's. The excellent visibility and the small







airport's position high up on Telegraph Hill ensured it was easily identifiable on an island which is only a couple of miles long. There was a slight crosswind from the west but the landing was smooth and precise although the braking action was more fierce than expected from such a small aircraft.

After a short taxi to the terminal and engine shutdown, friendly staff



were again on hand to open the door and guide the passengers to the small terminal which forms the base for the operations of both Skybus and British International Helicopters. A bus was on hand to take those who needed it on the five-minute drive to Hugh Town – where the majority of the island's facilities lie.

It is refreshing that, despite all the necessary security and safety procedures

that surround flying, there are still places where it can be regarded as an 'experience' rather than simply a means of getting from A to B. Of course, for the individuals who live on the island, it is merely a necessary means of transport. The air links – fixed wing and helicopter – are part of the Isles of Scilly's daily life and a familiar sight throughout the archipelago. **EW**

**Above left** - A view from inside the cabin of the fixed undercarriage of the Islander. The transit over the water is made at just 1,000ft.

**Above** - A Skybus DHC-6 Twin Otter arriving on the grass runway at St Just.

The approach to Runway 32 at St Mary's giving ample view of what happens if you're in any way short!

## Air Links History

In September 1937, the first official flights arrived on the Scilly Isles and used the golf course as a basic landing site. These were flown by de Havilland DH.84 Dragons of Channel Air Ferries which made a daily flight from Land's End. The service proved popular and by the following year it had increased to three times daily. The site at St Mary's Airport was officially opened in 1939 and was used by larger DH.89A Dragon Rapides of Great Western and Southern Air Lines (GWSA) which had taken over Channel Air Ferries. A charter company – Island Air Ferries – added to the daily traffic after World War Two using Percival Proctors. GWSA was taken over by British European Airways (BEA) in 1947 and continued in business for the next 15 years. Following the rescheduling of BEA's monopoly of

the route in the early 1960s, other operators tried to operate to the Islands. These included Mayflower Air Services (Plymouth), Scillonian Air Services (Gatwick), Barnack Aviation (Staverton), British Westpoint Aviation (Exeter) and Solair Flying Services (Coventry), but they did not last. By 1964, BEA had established a helicopter route using Sikorsky S61Ns. It was initially operated from Land's End but eventually moved to Perranpore Heliport at Eastern Green, although Rapides were still used from Land's End until 1970. These were then replaced by Islanders which began with operations by Island Air Charter and then by Brymon Airways, and these were followed four years later by the first Twin Otter. Skybus started flying in 1984 with its first of these Islanders and this service continues today.

Isles of Scilly Travel Group operate flights six days a week from Land's End, Newquay, Exeter, Bristol and Southampton. For more info see [www.islesofscilly-travel.co.uk](http://www.islesofscilly-travel.co.uk)



What's new  
in flight  
simulation  
software.

# The Ultimate Boeing 757

## Expansion for FS2004 and FSX - Quality Wings

**T**he Boeing 757, often dubbed 'the flying pencil' for its long, thin fuselage, is a versatile aircraft. The author has flown in the type on short flights from Manchester to London, travelled transatlantic from New York to Manchester, crossed Australia and was in the cockpit for a zero visibility landing in a snowstorm at Keflavik, Iceland, to name but a few adventures. The aircraft can be seen around the world on a wide variety of routes, making it an ideal type for the aspiring jet flight simmer, whether you wish to fly for 30 minutes or seven hours.

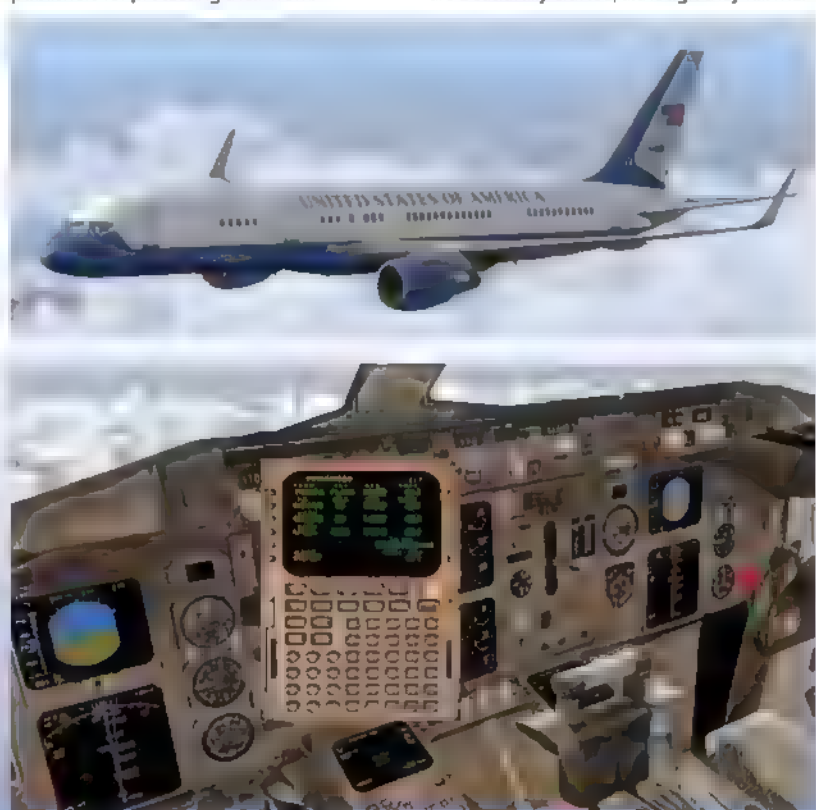
The development team at Quality Wings has recognised this and, in association with its publisher, Flight 1, has released a mammoth expansion for Flight Simulator 2004 (FS2004) and Flight Simulator X (FSX) for 757 fans. The developer has modelled every variant of the aircraft ever released by the manufacturer, totalling 15 versions. From the standard 200 series to the stretched 300, the military transport version, freighters, freighter conversions, new models with winglets and even the single 757M delivered to Nepal – all with multiple engine options from Pratt & Whitney and Rolls-Royce.

### An Incredible Livery Selection

Liveries for every passenger airline that you care to mention are found in an extras folder on the installation DVD. Flight 1 tells us that if the 757 wore the livery, it is probably included in the pack, both for charter and scheduled airlines. There are an astonishing 136 variations on the disk, ready to be installed, only a couple of freighter operators have not made it in to the box, although that seems almost churlish to mention, given the massive selection. The good news is that each livery can be installed as desired, without the need to have

them all taking space within the simulation. So this package provides every version of the 757, with virtually every livery ever painted on to the aircraft – a staggering achievement that deserves recognition. There is, however, one 'fly in the ointment' as many simmers buy the boxed version of a product due to lack of Internet access. After installation, the package requires licence verification online. The 'eSellerate' sales module is also added to the Flight Simulator menu structure. This monitors your hardware and notes any equipment changes, possibly requiring re-installation and revalidation as part of its anti-piracy measures. It seems draconian, but one can hardly blame publishers for protecting their work.

Of course, the mass of liveries and variations that the boxed version offers would come to nought if they were attached to a poor external model. Luckily, the Quality Wings 757 is extremely attractive and is an accurate reconstruction of the real aircraft, throughout each of the variations. A wide range of custom animations are included, including Auxiliary Power Unit (APU) doors, entry, service and cargo doors and wingflex in addition to the primary control surfaces and landing gear. Both FS2004 and FSX versions are available for installation from the disk, with the FSX version being a native model and not a port from FS2004. The aircraft with their liveries are beautifully crafted, although they fall mar-



The Boeing C-32A is the military transport version of the Boeing 757, usually flying with the call sign 'Air Force 2' when transporting the Vice President of the United States.

A simplified flight management computer is provided, which can be substituted in favour of the Microsoft GPS.

The rock band Iron Maiden leased its own aircraft, flown by band member Bruce Dickinson, who is also a qualified Boeing 757 pilot.







# Collection - *The Flying Pencil*



iginally short of the current state of the art. The advantage of that is high frame rates and fluid animation throughout all flights.

Turning to the cockpit, the depth of variation continues, with more than 50 customisation options, including a more modern cockpit layout with extended glass displays, instrument options and a wealth of airline features. Pre-recorded cockpit announcements from the flight attendants can also be enabled through the in-cockpit options menu pop-up panel. Modifying a configuration file in the aircraft

folder also allows various options, such as whether ground power should be automatically available, call-outs and system settings.

## Simplified Systems

By default, the aircraft systems are simplified. As an example, data entry into the flight management computer is much reduced, with weight and performance initialisation pages automatically populated and comes with an option to load a Flight Simulator flight plan. Alternatively, for those who really would pre-

fer to avoid Flight Management Computers (FMC), a flick of a switch utilises the default Microsoft GPS as the navigation source. The overhead systems are similarly reduced in complexity. Where that is not enough, a further mode is available via the options menu to simplify systems even further. This 'Lite' mode option even goes so far as to introduce a start/stop button on the overhead panel, which will automatically prepare the aircraft and engines for flight or for shutdown with a single button press. With all the simplification options utilised, the 757 can be flown much like a default Microsoft aircraft with easy to start engines, following the GPS flight plan. The flight dynamics have been carefully calibrated for easy flying and this aircraft is actually much more forgiving than the real 757, while still providing an enjoyable experience. If you prefer to fly from the 2D cockpit, the developers have also thoughtfully included two aspect ratio versions, with one for widescreen monitors, again ensuring that this is an aircraft for all tastes.

The detailed virtual cockpit captures the essence of the 757.

## An Audible Tour De Force

One of the most enjoyable experiences of the simulation is the sound. The engine noises were recorded from access to both Pratt & Whitney and Rolls-Royce engines throughout their entire thrust cycle. The net result is incredibly impressive, with deep immersive sounds that accurately recreate every distinctive whine of each engine type, a tour de force in sound design.

If you are a purist who insists on deep functionality of every switch and gauge, you may be disappointed. However, if you are looking for an aircraft that is incredibly fun to fly and is packed with options to make your life easier, while perhaps working towards mastering the complexity of airliner systems, then the Flight 1/Quality Wings Boeing 757 is possibly the aircraft for you. **Jane-Rachel Whittaker**

The overhead panel has been heavily simplified in its use, ensuring that the 757 is accessible to all experience levels within the simming community.



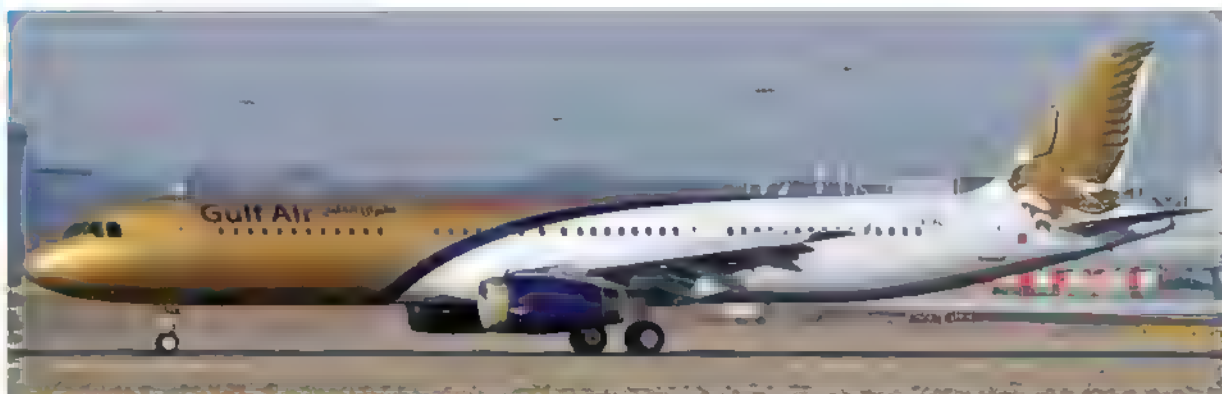
<b>Publisher:</b> Flight 1 Software
<b>Price:</b> £24.99
<b>Website:</b> <a href="http://www.flight1.co.uk">www.flight1.co.uk</a>
<b>Developer:</b> Quality Wings
<b>As planned:</b> The current version of the simulation brought you the Boeing 757, the Boeing 747 and the Boeing 777. The 757 is the most complex and the 777 is the most forgiving. The 747 is the most forgiving and the 777 is the most complex.
<b>System Requirements:</b> 1.5GHz CPU, 1GB RAM, 1GB Hard disk space, Windows XP/Vista/7
<b>Recommended:</b> 2.5GHz CPU, 2GB RAM, 2GB Hard disk space, Windows XP/Vista/7



## The latest commercial aircraft deliveries from manufacturers and lessors.

The first Airbus A321 for Gulf Air, D-AZAL/A9C-CA (c/n 5025), started test flying from Hamburg/Finkenwerder in early February prior to its delivery. (Gerd Beiluss/AirlinesGallery.com)

This new Embraer 190 Lineage 1000, PT-TLS/A6-AJJ (c/n 19000278), passed through Tenerife South in February on delivery to Al Jaber Aviation of the UAE. (Christian A. Amado)



BLUE SKY AIRWAYS			
A2-FHX	B737-247	22520	ex ZS-SH, dd 09.12.11, lsd fr Star Air Cargo
ABU DHABI AVIATION (AXU)			
A6-ADG	Dash 8-315	624	being convtd to Maritime Patrol aircraft for JAE Air Force
AIR ANABIA (G9/ABV)			
A6-ANH	A320-214	4958	ex D-AXAX, dd 14.12.11
EMIRATES AIRLINE (EK/UA)			
A6-EDS	A380-861	083	ex F-WWSE, dd 16.12.11
A6-EDT	A380-861	090	ex F-WWSE, dd 02.12.11
A6-EGJ	B777-31HER	38889	dd 08.12.11
A6-EGK	B777-31HER	41071	dd 15.12.11
A6-EGM	B777-31HER	41072	dd 29.12.11
ETIHAD AIRWAYS (EY/ETD)			
A6-EIO	A320-232	4934	ex F-WWBP, dd 20.12.11
FLYDUBAI (FZ/FDB 'SKYDUBAI')			
A6-FDW	B737-8KN	40250	dd 16.12.11, 7000th Boeing 737 built

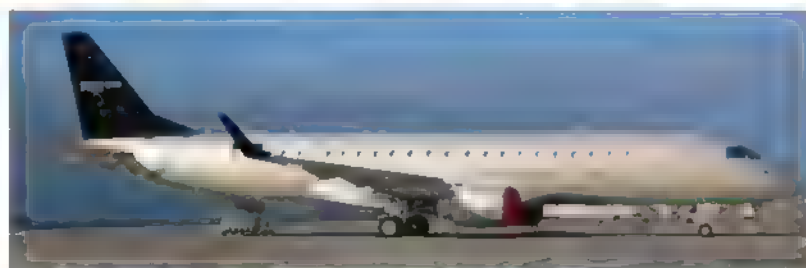
RUS AVIATION (R6/RLB)			
A6-JIL	A300B4-60SR(F) 626		named 'Sami'
N7082A	A300B4-60SR(F) 643		rr A6-JIM, ferried Dresden - Sharjah, named 'Darina'

GULF HELICOPTERS			
A7-GHL	Agusta AW139	31381	dd 12.11
QATAR AIRWAYS (QR/QTR 'QATARI')			
A7-AHQ	A320-232	4930	ex F-WWBL, dd 21.12.11
AIR CHINA (CA/CCA)			
B-2088	B777-39LER	38668	dd 12.12.11
B-2950	B737-320	27374	st China Science & Technology Research Institute 05.12.11
B-6825	A321-232	4949	ex D-AZAD, dd 06.12.11
B-6828	A320-214	4963	ex F-WWDP, dd 22.12.11

BEIJING CAPITAL AIRLINES (CBJ 'CAPITAL JET')			
F-WHJH	A320-232	4388	rr H60FC
CHENGDU AIRLINES (EU/EUA 'UNITED EAGLE')			
B-6900	A320-214	2654	ex D-ABDC, dd 29.12.11
CHINA EASTERN AIRLINES (MU/CE)			
B-6530	A330-243	1267	ex F-WWKK, dd 05.12.11
B-6545	A330-243	1291	ex F-WWVB
B-6832	A320-214	4831	ex B-512L, dd 21.12.11
CHINA SOUTHERN AIRLINES (CZ/CSN)			
B-2080	B777-31ER	37314	dd 20.12.11
B-5281	B737-71B	38914	dd 11.12.11
B-6137	A380-841	036	ex F-WWAM, dd 16.12.11
B-6826	A320-232	4836	ex B-513L, dd 23.12.11
B-6827	A320-232	4982	ex D-ANVO, dd 29.12.11, lsd fr ALG

CHINA SOUTHERN AIRLINES ZHUAJI HELICOPTERS			
B-7116	S-92A	920147	ex N220BU, reg'd 07.11.11
B-7118	S-76C++	760819	ex N819S, reg'd 27.12.11
CHONGQING AIRLINES			
B-6576	A320-232	3941	ex F-WWDS
DALIAN AIRLINES			
B-5553	B737-89L	40026	3576
HAINAN AIRLINES (HU/HNH)			
B-5623	B737-84P	38148	dd 15.12.11
B-6539	A330-343	1255	ex F-WWYM, dd 19.12.11, lsd fr Hong Kong Airlines
B-6837	A320-232	4825	ex B-511L, dd 13.12.11, lsd fr Tianjin Airlines

MEIBEI AIRLINES			
B-3187	E190-100AR	0497	dd 20.12.11
B-3188	E190-100AR	0502	dd 20.12.11
B-5212	B737-75C	34024	
B-5215	B737-75C	34025	
KUNMING AIRLINES			
B-5026	B737-78X	30742	
SPRING AIRLINES (9S/COH 'AIR SPRING')			
A6-218	A320-214	4809	ex B-510L, dd 23.12.11
TIANJIN AIRLINES (GS/GCR 'CHINA DRAGON')			
B-6837	A320-232	4825	ex B-511L, dd 13.12.11
CATHAY PACIFIC AIRWAYS (CX/CPA)			
B-LJF	B747-867F	39243	dd 12.12.11
CHINA AIRLINES (CI/CAI 'DYNASTY')			
B-18356	A330-302	1272	ex F-WWYD, dd 14.12.11, lsd fr GAP
B-18705	B747-409F	30762	ex N705CL



EVA AIR (BR/EVA)			
B-16108	MD-11F	48778	st Aircastr 12.11 & lsd back as B-16108
B-16109	MD-11F	48779	ex F-WWKE, dd 15.12.11, lsd fr CIT
B-16633	A330-302	1274	

AIR CANADA (AC/YCA)			
C-FBLJ	A319-112	1630	ferried Marana - Montreal 12.01.12 after storage as C-FBLJ
C-GKNW	A319-112	1805	
AIR CREEBEC (YV/CRQ 'CREE')			
C-FCDJ	Dash 8-102	158	
AIR SPRAY (1967) LTD			
C-GDIZ	L-188A	1053	ex N343HA, bf Rockland Aerospace, reg'd 20.01.12

AIR TRANSAT (TS/TSC)			
C-GITS	A330-243	271	ferried to Montreal 11.12.12.11 after Hajj lease to Garuda
C-GPTS	A330-243	480	ferried to Toronto 09.10.12.11 after Hajj lease to Garuda
C-GTSL	A330-243	427	ex G-DIMB, dd 20.12.11 lsd fr CIT

BEARSKIN AIRLINES (BW/BS)			
C-GVDO	SA227-DC	DC 8468	ex VH-KEJ
CHC GLOBAL OPERATIONS (HMB)			
C-GHUA	S-92A	920153	ex N153SF, reg'd 20.12.11
FIRST AIR (7F/FAB)			
C-GCNO	B737-25A	23790	ex N790CC, rr C-GNOF 07.01.12

GREAT SLAVE HELICOPTERS			
C-GMVN	Boeing 412EP	36253	ex XA-AAB, bf Eagle Copters 26.01.12
HELJET INTERNATIONAL (JB/JBA)			
C-GHYO	S-76C++	760499	ex N761Q, reg'd 20.12.11
LABRADOR AIRWAYS (WJ/LAL 'LAB AIR')			
C-GJZF	DHC-6-300	549	ex N61UT, dd 11.01.12, lsd fr Ashe Aircraft

MARINA AIR SERVICE (72)			
C-GHQZ	PC-12/47E	1309	ex N309NG, reg'd 19.12.11
SKYSERVICE BUSINESS AVIATION			
C-FBLY	Dash 8-315	574	ex EC-LFU, reg'd 20.01.12
STRAIT AIR (2000) LTD			
C-GQZE	PA-31	31-12065	reg'd 13.01.12

SUNWING AIRLINES (HO/SWG)			
G-FDZF	B737-8KS	25138	ex N1786B, dd 18.12.11, sub-isd fr Thomson
WESTJET (WS/WJA)			
C-FWVJ	B737-8CT	37962	dd 13.12.11, lsd fr BOC
WESTWIND AVIATION (WEW)			
C-GWEA	B1900D	1E 368	rr C-GDCG

AEROLINEA PRINCIPAL CHILE (SP/PCP)			
EC-LEQ	A330-343X	1097	ex F-WWKL, dd 06.01.12, sub-isd fr Orbesi Orizono
LAN AIRLINES (LA/LAN)			
CC-BAY	A320-214	4972	ex D-ANVC, dd 21.12.11
SKY AIRLINE (H2/SKU 'AEROSKY')			
9H-AEF	A320-214	2142	ex F-WWBL, dd 02.01.12, lsd fr Air Malta

AIR ARABIA MAROC (3Q/MAC)			
CM-NMC	A320-214	2166	was not ret to Air Arabia 07.11.11 after lease
ROYAL AIR MAROC (AT/RAM)			
CM-RGI	B737-8GN	36831	dd 07.12.11, lsd fr GECAS
EUROATLANTIC AIRWAYS (YU/MAZ)			
CS-TFS	B767-300ER	25411	ferried to Lisbon 10.12.11 after Hajj lease to MAS Air

WHITE AIRWAYS (WU/WHY 'WHITEJET')			
CS-TKI	A310-304	448	ret fr Air Niugini
AIR BERLIN (AB/BER)			
D-ABMD	B737-86J	37761	dd 30.12.11
D-ABFY	A320-214	4964	ex D-AXAZ, dd 21.12.11
D-ABKC	B737-86J	37741	ex YR-BGR, ret fr Tarom
EAT LEIPZIG (QY/QCS 'EUROTRANS')			
N2621	A300B4-622R	621	convtd to A300B4-622R(F) by EADS Dresden 11.11, rr D-AEAG, dd ex Dresden 08.12.11, ferried to Shannon for painting

LUFTHANSA (LH/DLH)			
D-AIDN	A321-231	4976	ex D-AZAI, dd 27.12.11
LUFTHANSA CITYLINE (LH/CLM)			
D-AEBK	E190-200LR	0500	dd 13.12.11 lsd fr Lufthansa named Alzey
D-AECH	E190-100LR	0376	
TUIFLY (TK/TUI)			
D-AHFZ	B737-8KS	30883	sold by GOAL to Oak Hill Capital Partners 12.11, still lsd to TUI

TAAG ANGOLA AIRLINES (DT/DJA)			
D2-TBK	B737-HBC	35955	ex D2-EVZ
AIR NOSTRUM (YW/NAE 'NOSTRU AIR')			
EC-LOX	CRJ1000	19020	dd 08.12.11
EC-LPG	CRJ1000	19021	ex C-GZQW, dd 13.12.11
AIR PULLMANTUR (EB/PLM)			
EC-KQC	B747-412	26549	ferried to Madrid 11.12.11 after Hajj lease to Garuda
EC-KXN	B747-412	25073	ferried to Madrid 13.12.11 after Hajj lease to Garuda

VOLOTEA			
EC-LPM	B717-2BL	55185	ex N923ME, lsd fr Boeing, ferried Victorville - Palma

RYANAIR (FR/RVN)			
E-ESR	B737-BAS	34995	ex N759BA, dd 15.12.11
E-ESS	B737-BAS	35043	ex N760BA, dd 16.12.11
E-EST	B737-BAS	34994	ex N761BA, dd 20.12.11
E-ESV	B737-BAS	34993	ex N762BA, dd 20.12.11
E-ESW	B737-BAS	34997	ex N1795B, dd 06.12.11
E-ESX	B737-BAS	34998	dd 06.12.11
E-ESY	B737-BAS	34999	dd 02.12.11
E-ESZ	B737-BAS	34996	dd 02.12.11
ARMAVIA (UB/RNV)			
EK3772	B737-555	28472	ex OK-DGL, dd 27.12.11 lsd fr CSA

TABAN AIR LINES (TH/TBM)			
EP-MDE	DC-9-82	49523	ex 4L-YAB, dd 12.11, lsd fr Iran Air Tours

ESTONIAN AIR (OV/ELL)			
ES-ACD	CRJ900	15276	ex C-GZQK, dd 13.12.11
ETHIOPIAN AIRLINES (ET/ETH)			
ET-AJD	B767-360ER	33768	repainted into Star Alliance colours
AIR BISHKEK			
EX-32001	A320-212	0445	ex N187AT, dd 11.11
EX-32002	A320-231	0386	sub-isd fr Kyrgyz Airways ex EY-621, dd 10.11, sub-isd fr Kyrgyzstan Airlines

AVIA TRAFFIC COMPANY (Z7/AVI 'ATOMIC')			
EX-37005	B737-3YD	24681	ex N554MS
AIR RAROTONGA			
ES-TAB	Embraer 110P1	110447	ex V4-MWF, dd 13.12.11
XL AIRWAYS FRANCE (SE/XLF 'STARWAY')			
C-GTSH	A330-243	369	ex HR-HQZ, dd 16.12.11, wet sub-isd fr Air Transat

airc	aircraft
del	delivered
reg	registered
ret	returned
scr	scrapped
st	stored
td	to be delivered
unk	unknown
wf	withdrawn from service
w/o	written off



CS-TRH	A330-343X	833	ex EC-MCP, dd 16.12.11, sub-Isd fr Orbest
<b>BOND OFFSHORE HELICOPTERS</b>			
G-PUMR	EC-225LP	2818	reg'd 04.01.12
<b>BRISTOW HELICOPTERS (BHL)</b>			
G-CGZS	S-92A	920054	ex C-GKNR, reg'd 03.01.12, Isd fr Cougar Helicopters
<b>BRITISH AIRWAYS (BQ/BQW 'SPEEDBIRD')</b>			
G-STBE	B777-36NER	38696	dd 09.12.11, Isd fr GECAS
<b>CNC SCOTIA</b>			
G-JSKN	EC-225LP	2022	reg'd 04.01.12
<b>JET2.COM (LS/EXS 'CHANNEX')</b>			
G-GDFE	B737-85P	28505	ex EC-HGP, dd 22.12.11, Isd fr Jiochu
<b>GLOBAL SUPPLY SYSTEMS (GSS 'JET LIFT')</b>			
G-GSSE	B747-87UF	37568	(NBS1GT ntul), dd 05.12.11, Isd fr Atlas Air
G-GSSF	B747-87UF	37569	(NBS2GT ntul), dd 15.12.11, Isd fr Atlas Air
<b>THOMAS COOK AIRLINES (MT/TCX)</b>			
G-OMYT	A330-243	301	ferried to Manchester 11.12.11 after Hajj lease to Garuda
<b>THOMSON AIRWAYS (BY/TOM)</b>			
G-FDZZ	B737-8K5	37262	dd 21.12.11 Isd fr TUI
<b>EASYJET SWITZERLAND (DS/EZS 'TOPSWISS')</b>			
HB-JVA	A320-214	4250	ex G-EZTW Isd fr RBS
<b>PRIVATAIR (PTU)</b>			
HB-JJC	B737-306	27420	ex PH-BTD
<b>SKYWORK AIRLINES (SX/SRK 'SKYFOX')</b>			
HB-AEV	Do 328-100	3056	ex I-RTI, dd 28.12.11
<b>SWISS INTERNATIONAL AIR LINES (LSXSWI)</b>			
HB-IOM	A321-212	4534	named 'Bleu/Biennoe'
HB-JML	A340-313X	263	named 'Stans'
HB-JMN	A340-313X	175	named 'Alldor'
<b>AVIANCA - AEROVÍAS NACIONALES DE COLOMBIA (AV/AVA)</b>			
N279AV	A330-243	1279	to be st Avolon on dely & Isd back
N939AV	A320-214	4939	ex F-WWBN, dd 19.12.11
<b>HAPPY AIR</b>			
HS-HPA	Saab 340B	255	Isd fr Alandia Air (was sold by Lambert Leasing to Alandia Air)
<b>NOK MINI (SIAM GENERAL AVIATION)</b>			
HS-GBC	Saab 340B	422	sold by Lambert Leasing to AeroCentury 12.11, still Isd to Nok Mini
HS-GBD	Saab 340B	423	as HS-GBC
HS-GBE	Saab 340B	426	ex N426KJ, dd 12.10.11 Isd fr Lambert Leasing
<b>THAI AIRASIA (FD/AIQ 'THAI ASIA')</b>			
HS-ABV	A320-216	4979	ex D-AVVM, dd 23.12.11, Isd fr AirAsia
<b>THAI AIRWAYS INTERNATIONAL (TG/THA)</b>			
HS-TBA	A330-343E	1263	ferried Frankfurt - Bangkok 20.12.11 after seat installation
HS-TBB	A330-343E	1269	ex F-WWVY, dd 07.12.11 & ferried to Frankfurt for seat installation ferried Frankfurt - Bangkok 20.12.11 after seat installation, named Phrae



<b>SAUDI ARABIAN AIRLINES (SV/SVA)</b>			
HZ-ASF	A320-214	4955	ex D-AXAW, dd 13.12.11
HZ-ASO	A321-211	4962	ex D-AZAG, dd 23.12.11
<b>AIR DOLOMITI (EN/DLA)</b>			
D-AEMG	E190-100LR	0404	ex PT-TYX, dd 12.11, sub-Isd fr Augsburg Airways
<b>AM VALLEE (DO/RVL)</b>			
YR-HBE	DC 9-83	49396	ex EC-GNY, dd 21.12.11, Isd fr Mediation Air
<b>ALITALIA 'AZ/AZA'</b>			
EI-DIP	A330-202	339	named 'Gian Lorenzo Bernini'
EI-EAL	A330-232	1283	named 'Piero della Francesca'
EI-RNC	E190-100LR	0503	'Parco Nazionale Arcipelago Toscano'
<b>ANA - ALL NIPPON AIRWAYS (NH/ANA)</b>			
JA805A	B787-881	34514	dd 30.12.11
<b>HOKKAIDO INTERNATIONAL AIRLINES (HO/ADO 'AIR DO')</b>			
JA300K	B737-54K	27434	purch off lease 22.11.11
JA8504	B737-54K	27432	purch off lease from BBAM
JA8595	B737-54K	28461	as JA8504
<b>JAPAN AIRLINES (JL/JAL)</b>			
JA659J	B767-346ER	40371	dd 14.12.11
<b>PEACH AVIATION (APJ 'AIR PEACH')</b>			
JA802P	A320-214	4936	ex F-WWBU, dd 15.12.11, Isd fr GECAS
<b>MONGOLIAN AIRLINES</b>			
JL8881	Fokker 50	20183	named 'Hunnu'
JL-8882	Fokker 50	20184	ex LN-RNG, dd 03.12.11, Isd fr NAC, named 'Kidan'
<b>NORWEGIAN AIR SHUTTLE (DY/NAX 'NORSHUTTLE')</b>			
LN-DYS	B737-81P	39007	Isd fr Aviation Capital Ltd
LN-DYW	B737-81P	39010	dd 19.12.11 Isd fr DY3 Leasing, tail logo Thorbjørn Egner - Norwegian author
<b>WIDERØE'S FLYVESELSKAP (WF/WIF)</b>			
LN-WDL	Dash 8-40Q2	4392	ex C-GLKA, dd 22.12.11, Isd fr SAS
<b>AEROLÍNEAS ARGENTINAS (AR/ARG)</b>			
LV-CSD	A340-313X	123	ex B-HXAM, dd 19.12.11
LV-CSE	A340-313X	126	ex B-HXN, dd 08.01.12
LV-CSX	A340-313X	373	ex F-GNHH, dd 22.12.11
LV-CTC	B737-86J	30570	ex N570MQ, dd 22.12.11 Isd fr Macquarie
<b>ANDES LÍNEAS AEREAS (OY/AMS 'AEROANDES')</b>			
EC-JGM	A320-214	2407	ex F-WWDC, dd 29.12.11, sub-Isd fr Vueling
EC-LLJ	A320-214	4661	ex F-WWH, dd 28.12.11, sub-Isd fr Vueling
<b>LAN ARGENTINA (4M/DSM 'AERO DOSMIL')</b>			
LV-CQS	A320-233	1526	ex CC-COL, dd 17.12.11, Isd fr LAN Airlines
<b>WEST AIR LUXEMBOURG</b>			
LX-WAE	BAe ATP(F)	2037	ex SE-MAP
LX-WAK	BAe ATP(F)	2061	ex SE-LNX
<b>AVION EXPRESS (NVD)</b>			
LY-VEZ	A320-212	0299	ex PH-AAZ, dd 15.12.11
LY-	A320-212	0419	ex N419AG, dd 20.12.11
<b>DOT &amp; T (IRG/DNU)</b>			
PH-JXJ	Fokker 50	20232	dd 08.12.11 Isd fr Denim Air

<b>SMALL PLANET AIRLINES (LJC 'JMALIMACHARLIE')</b>			
LY-AQX	B737-322	24664	ex SP-HAA, dd 12.11
<b>AIR VIA (VL/VIM 'VIA AIRWAYS')</b>			
LZ-MDA	A320-232	2732	ret fr Aegean
<b>BH AIR (BGH 'BALKAN HOLIDAYS')</b>			
LZ-BHB	A320-212	0294	ret fr Tor Air
<b>AMERICAN AIRLINES (AA/AAL)</b>			
N877NN	B737-883	31131	st AerCap on dely & Isd back
N879NN	B737-883	31133	as N877NN
N880NN	B737-823	40769	dd 07.12.11
N881NN	B737-823	31135	dd 13.12.11
N324AA	B767-323ER	22325	purch off lease 23.11.11
<b>BRISTOW US LLC (BTG)</b>			
N912BG	S-92A	920021	ex N92UT
N912BG	S-92A	920155	ex N155J
<b>CAPITAL CARGO INTERNATIONAL AIRLINES (CCI 'CAPPY')</b>			
N286SC	B72-2A1(F)	21601	st Cargo Aircraft Management 30.11.11 by banks, still Isd to Capital Cargo
N287SC	B727-2A1(F)	21345	as N286SC
N531UA	B757-222(F)	25042	purch off lease 16.12.11, Isd fr Cargo Aircraft Management as N286SC
N713AA	B727-223(F)	22469	
<b>DELTA AIR LINES (DL/DAL)</b>			
N661DN	B757-232	24972	purch off lease 14.12.11
N662DN	B757-232	24991	as N661DN
N663DN	B757-232	24992	purch off lease 19.12.11
N664DN	B757-232	25012	as N661DN
N667DN	B757-232	25035	purch off lease 15.12.11
N668DN	B757-232	25141	ferried Marana - San Antonio 03.01.12 for rts after storage
N669DN	B757-232	25142	as N667DN
N966DL	MD-88	53115	purch off lease 13.12.11
N967DL	MD-88	53116	purch off lease 15.12.11
N971DL	MD-88	53214	as N966DL
N978DL	MD-88	53259	as N966DL
N959DN	MD-90-30	53529	ferried Marana - Atlanta 22.12.11
N962DN	MD-90-30	53532	ferried Marana - Atlanta 08.12.11
N963DN	MD-90-30	53533	ferried Marana - Atlanta 09.12.11
<b>ERA HELICOPTERS</b>			
N804CB	Agusta AW139	41277	reg'd 20.12.11
<b>ERICKSON AIR CRANE</b>			
N247AC	S-64E	64052	ex C-GJRY
<b>EVERGREEN HELICOPTERS (ZE)</b>			
N105EV	B1900D	UE-64	ex N-900R, dd 15.12.11
<b>EVERGREEN INTERNATIONAL AIRLINES (EZ/EIA)</b>			
N238AS	B747-446	25308	ex JA8086, bf AerSale 15.12.11, for conversion to B747-446BCF by TAECO
<b>FEDER EXPRESS (FM/FDX 'EXPRESS')</b>			
N951FD	B757-236	28665	cnv'd to B757-236(F) by SASCO, dd ex Singapore 05.12.11
N952FD	B757-236	28666	ferried Victorville - Singapore for freighter conversion
N996FD	B757-208	26270	cnv'd to B757-208(F) 12.11
N998FD	B757-230	24747	ex EI-IGC
<b>FRONTIER AIRLINES (F9/FFT)</b>			
N261AY	A320-214	1615	ex F-WWDR, dd 19.12.11, Isd fr GECAS, to be rr N218FR
<b>GULF &amp; CARIBBEAN CARGO (GFC)</b>			
N215WE	B727-252F	22936	ex N215FE, dd 30.11.11
N216WE	B727-252F	22937	ex N216FE, dd 30.11.11, (both Isd fr International Trading Co of Yukon (Kelowna))
<b>JETBLUE AIRWAYS (B6/JBU)</b>			
N337JB	E190-100AR	0473	named 'I'm With Blue'
N346JB	E190-100AR	0504	dd 24.01.12
<b>NATIONAL AIR CARGO (NB/NCH 'NATIONAL CARGO')</b>			
N952CA	B747-428BCF	25238	ex TF-NAC, ret fr Air Atlanta PHL
N146PH	Agusta AW139	41280	reg'd 22.12.11
<b>REPUBLIC AIRLINE (RPA 'BRICKYARD')</b>			
N176HQ	E190-100AR	0461	(in Frontier colours with goats head tail)
N177HQ	E190-100AR	0481	(in Frontier colours with mountain lion kitten tail)

We welcome any feedback on this listing.

(The listing is alphabetical with reference to the registration of the country of origin.)

Air Europa of Spain has taken delivery of this ex-Cyprus Airways Airbus A330-243, SB-DBS (c/n 505), which was repainted in Dublin, Ireland before moving to Manchester, UK. (Phil French)

The latest acquisition for Equatorial Congo Airlines (operated by Privatair) is this Boeing 737-306, HB-JJC (c/n 27420, ex PH-BTD), which was pictured at Budapest Airport, Hungary in February. (Tamás Martényi)

ate	survive
ats	survive
aways	away
bf	thoughtless
br	broken up/scrapped
canx	can afford
cs	cancel
cn	the whole lot/box
	communications
cnvrt	number
	converted
dnf	destroyed by fire
disr	disruption beyond
	repair
del	delivery date
ex	previous organ
fr	fire flight
frt	freight
lfr	lost revenue flight
lnd fr	landed flight
lnd to	landed to
msn	mission
ntu	not taken up
oo	on order
op	operated
pax	passenger
perfu	performance
	withdrawn from
	use
reg'd	registered
reg'n	registration
ret fr	returned from
ret to	returned to
rtg	requisition
rtz	return
scr	scrapped/scrapped
sz	scrapped/broken up
st	sold to
std	stored
tba	to be advised
unf	unknown
wk	withdrawn from
use	use
wro	written off/
	destroyed

SHUTTLE AMERICA (55/7CF 'MERCURY')			
N823MD	E170-100SU	0044	in Delta Connection colours
N824MD	E170-100SU	0045	as N823MD
SILVER AIRWAYS			
N437XJ	Saab 340B	437	ex SE 847 dd 16.12.11 purchased Lambert Leasing
SKYWEST AIRLINES (200/SW)			
N496CA	CRJ200	7791	in SkyWest colours, op for US Airways Express
N508CA	CRJ200	7793	as N496CA
N601QX	CRJ700	10011	in Delta Connection colours
N906SW	CRJ200	7510	repainted into US Airways Express colours
N907SW	CRJ200	7511	as N906SW
N944SW	CRJ200	7764	as N906SW
SOUTHERN AIR (9S/SOO)			
N469AC	B747-46(F)	27602	ex ZK-SU, dd 21.12.11
SOUTHWEST AIRLINES (WN/SWA)			
N968WN	B737-7H4	36679	dd 19.12.11
N969WN	B737-7H4	41777	dd 21.12.11
SPIRIT AIRLINES (NK/NKS 'SPIRIT WING')			
N609NK	A320-232	495T	ex F-WYWD, dd 22.12.11
SUN COUNTRY AIRLINES (NWS/CND)			
PH-HZJ	B737-8K2	28380	dd 21.12.11, sub-Isd fr Transavia
SWIFT AIR (Q75/SWD 'SWIFFLIGHT')			
N737DX	B737-40B	24804	Sub Transjet 3 LLC to International Trading Co of Yukon 09.12.11, still Isd to Swift Air

UNITED AIRLINES (UA/UAL)			
N194UA	B747	A22	26892
ret fr Atlas Air			
US AIRWAYS (US/AWE "CACTUS")			
N550UW	A32	231	4935
N551UW	A321	231	4940
N552UW	A32	231	4957
N553UW	A321-231		4960
N554UW	A321-231		4966
ex D-AWE, dd 02.12.11			
ex D-AZAB, dd 07.12.11			
ex D-AZAE, dd 12.12.11			
ex D-AZAF, dd 15.12.11			
ex D-AWZB, dd 30.12.11			
VIRGIN AMERICA (VX/VRO "REDWOOD")			
N841VA	A320	214	4655
N844VA	A320	214	4851
N845VA	A320	214	4867
N847VA	A320	214	4948
named 'nerdbird'			
named 'w/ plane'			
named 'stay hungry stay foolish'			
ex F-WSDH, dd 21.12.11			
fsd fr RBS			
ex F-WWDD, dd 22.12.11,			
fsd fr Jackson Square			

BRUSSELS AIRLINES [SW/DEL 'BEELINE']			
OO-SW	A319 1 1	3755	ex ETG, dtd 20 01 12 lsd fr RBS
THAI AIRWAYS [3V/TAY 'QUALITY']			
OE-IAP	B737 4M01F	29206	ex PK GZK, dd 23 12 11 lsd fr GECAS
OE-IAQ	B737 4M01F	29207	ex PK GZL, dd 28 12 11 lsd fr GECAS

**AIR GREENLAND [GL/GRL]**  
 OY GRK Josh B 202 498 ex GLZ regd 24.01 2  
**[JET TIME !JTG]**

0Y-JTW B737-3Y0(QC) 24255 ex DO TNG, dd 23.12.11,  
1st fr GFCAS

THOMAS COOK AIRLINES SCANDINAVIA [DK/VKG "Viking"]  
G-MML A330-243 254 ex f WWK1 dd 12 12 11  
td fr Thomas Cook UK

**KLM ROYAL DUTCH AIRLINES (KL/KLM)**

PH BGT	B737 7K2	38634	st BBAM 12.11 & lsd back
PH BGT	B737 2K2	39257	as PH-BGT

PH-BGX B737 7K2 38635 as PH-BGT

AVIASTAR MANDARI

PA-BRI	One 40-200	1222'	ER-6-BRMS, 00 22.12.11, led fr Trident Aviation
<b>GARUDA INDONESIA (GA/GIA)</b>			
PK-GES	B737-85M	36830	dd 00 13 11 led fr GECAS

PK-GFS	B737-800	38830	dd 09.12.11, dd fr GECAS
PK-GFT	B737-86M	38032	dd 16.12.11, lsd fr GECAS
PK-GLA	A320-233	1635	ex HA-LPB, dd 10.12.11, lsd fr AerCap.

PK GMS 8737 8U3 38071 op by Garuda Citilink  
dd 06.12.11

INDONESIA AIRASIA (QZ/AWQ)			
PK AXS	A320 216	2885	ex 9M AFK dd 11 11
PK AXI	A320 216	2885	ex 9M ANK dd 12 11, (both sd fr A: Asia)

LION AIR [ST/LION INTER]				
PK LQH	8737	9GPER	37288	dd 02 12 11
PK LIJ	8737	9GPER	38310	dd 14 12 11

PACIFIC ROYALE AIRWAYS				
PK	Fokker 50	20313	as ET AKR	
PK	Fokker 50	20328	as ET AKS	
PK	Fokker 50	20331	as ET AKT	
PK	Fokker 50	20333	as ET AKJ	
PK	Fokker 50	20335	as ET AKV	

New operator due to commence services in late Q1 12  
1st aircraft is PK PRA the up and yet known

SKY AVIATION			
PK-ECD	Fokker SO	20271	ex PH-LXX
PK-ECE	Fokker SO	20277	ex PH-LXR
PK-ECF	Fokker SO	20279	ex PH-LXT
PK-ECH	Fokker SO	20255	ex PH-KXS, dd 13 01 12, purchased by Mass Holding

SARAWAJAYA AIR (SJ/SJY)			
PK CKL	8737	319	27337 named 'Kemurahan
PK-CKK	8737	319	27336 named 'Kejujuran
PK CKL	8737	308	26293 named 'Keskhiasan

TRANSMUSA MANDIRI			
PK TNC	Fokker 50	20240	ex D2-ESR, dd 15.12.11
PK TNS	Fokker 50	20307	ex PK BRW

WINGS ARAD AIR (IM/WOM)  
PK WFTV ATR 72 212A 985 ex F WWF, dd 24 12 11  
1sd fr Lion Air

AIR AMAZONIA  
PP PSA Emb 120ER 120302  
AVIANCA BRAZIL (06/ONE)

PR AVL A320-214 4942 ex F WWBV, dd 21 12 11,  
Isd fr ACG  
AZUL LINHAS AEREAS BRASILEIRAS (AD/AZU)

PR A1E ATR 72-600 972 ex F WWLW. dd 08 12 11  
Isd Ir A.C. named Azul Zulu  
uniform, tanga

PR-AXA	E190-200AR	0491	dd 22 12 11 named 'Azul Safira'
PR-AXB	E190-200AR	0498	dd 22 12 11, 1st fr Onnoco Funding, named 'Ceu Azul da Brasileira'

PR-AYV	E190-200AR	0445	de Brasilia sl CIT 12 11 & lsd back
PR-AYW	E190-200AR	0458	as PR-AYV, named "Vento Azul"
PR-AYZ	E190-200AR	0494	del 12 11

PR-AYN	A320-214	4953	ex D-AXAL, dd 12.12.11
PR-AYN	A320-214	4974	ex D-AYVK, ddt 19.12.11

TRIP LINHAS AÉREAS (T4/T18)			
PP PJQ	£190	100LR	0493 dd 15 12 11
PP PJR	£190	100LR	0495 dd 11 11 1sd fr ALC
PP PJT	£190	100LR	0506 dd 16 12 11 1sd fr ALC

WEBJET [WWW/WEB]  
PR GLI B737 8EH 34280 dd 14 12 11 lsd fr GOL  
AEROFLOT RUSSIAN AIRLINES [SU/AFI]

VQ-BQZ A330 343E 1270 ex F WWYG. dd 12 12 1,  
named 'N Burdenko  
NORDBAR [Y2/TY2]

VQ RPM 8737 BAS 33812 ex E. DCS  
Isd fr Ryanair ?

VQ BOE A321 211 1219 ex AA ABED, dd 20 12 11  
isd fr AACAP

**ROSSIYA AIRLINES (EW/SOM)**

El-CDE B737-548 25115 ferried Perpignan - St Petersburg, not rel to ILFC

RA-67255 Dash B-315 581 ex C GLKW dd 28 12 11  
150 fr Avenue  
TRANSAERD AIRLINES (UN/TSO 'TRANSOVIET')

ENJN	B777-312	28517	ex 9V SYC isd fr S ecker Ltd
N767UA	B777-222	26918	"E" UNY, ferried Rome RME

N920UN	B747 446	27648	Moscow 22.12.11 + El K. joined Melbourne - Moscow 19.12.11
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N922UH 8747 446 27646  
 1st Tr Pembroke Exchange Ltd  
 ferried San Antonio  
 Melbourne 18.12.11

UTAIR AVIATION (U7/UTA 'TJUMAVY')

VQ BFF	B737 8AS	32778	ex VQ BBR
VQ-BJU	B737-524	28899	ex N19638, dd 16.12.11
VQ BLN	ATR 72 212A	981	ex F-WWEB dd 15.12.11
VQ-BJA	ATR 72 212A	983	ex F-WWEB dd 15.12.11

**YAMAL AIRLINES (YQ/LLM)**

**LAD CENTRAL AIRLINES**

CEBU PACIFIC AIR (SA/CEP)  
 20 6 22 2 1230 311 4037 1 5 14100 11 22 11

RP C3267 A320 214	4927	ex F WWWB, dd 08 12 11
<b>MID-SEA EXPRESS</b>		
RP C863 J5 3202	974	ex VH QTP dd 12 12 11



# AIR SWEDEN (SNK 'SNOWFLAKE')

SE-RJM A320-212 0289 ferried Stockholm Istanbul 19.12.11 after storage

# AMAPOLA FLYG (APF)

SE-MFB Fokker 50 20252 ex PH-KXM, dd 23.12.11, lsd fr Largus Aviation

# SAS SCANDINAVIAN AIRLINES (SKS/SAS)

LN-RLE DC 9-82 49382 to be wfs 18.05.13  
LN-RLE DC-9-82 49383 to be wfs 07.11.12  
LN-RML DC-9-82 53002 to be wfs 31.08.13  
LN-RML DC-9-82 53005 to be wfs 03.12.13  
LN-RMT DC-9-82 53001 to be wfs 16.08.13  
LN-RPA B737-683 28290 st Summit SA, Two Ltd (Summit Leasing) 12.12.11 & lsd back

LN-RPW B737-683 28289 st Summit SA, One Ltd (Summit Leasing) 09.12.11 & lsd back

OY-KGT DC-9-82 49380 to be wfs 10.07.13  
OY-KHM DC-9-82 49914 to be wfs 10.12.12  
OY-KHN DC-9-82 53000 to be wfs 04.10.13  
SE-DIL DC-9-82 49913 to be wfs 21.10.12  
SE-DIN DC-9-82 49999 to be wfs 30.04.13  
SE-DIP DC-9-82 53010 to be wfs 07.06.13  
SE-DIU DC-9-82 53011 ret fr Skyways Express

# WEST AIR SWEDEN (PT/SWN 'AIR SWEDEN')

SE-RIF CRJ-200 7142 convtd to Canadair R.200(F) in Ljubljana 11.11

# SPRINTAIR (SRN)

SP-KPC Saab 340A 070 ex SE-RC7

# EGYPTAIR (MS/MSR)

SU-GDV A330-343E 1246 ex F-WWXY, dd 21.12.11

# RAJSHAH AIR

S2-A340-311 002 ex M-YRGU, dd 16.12.11

# UNITED AIRWAYS (AU/UBO 'UNITED BANGLADESH')

S2-AFW A370-325 674 ex F-HBOS, dd 23.12.11, lsd fr Airbus

# BORA JET (BJ/BJJ)

TC-YAF ATR 72-212A 982 ex F-WWEC, dd 23.12.11, named Enri

# PEGASUS AIRLINES (PG/PGT 'SUNTURK')

TC-AIS B737-82R 38174 dd 13.12.11, named 'Sevde Nil D'

TC-ASP B737-82R 40011 named 'ipek'

TC-AVP B737-82R 38175 dd 21.12.11, named 'Yagmur Aydin'

# TAILWIND AIRLINES (TL/TWI)

TC-TLC B737-408 25112 ret fr Okapi Airlines

# TURKISH AIRLINES (TK/THY)

TC-JHL B737-8F2 40976 dd 16.12.11

TC-JYA B737-9F2ER 40973 ex N973TK, dd 24.08.11, ferried to PATS Charlestown same day for long range tank installation, dd ex-Charlestown 09.12.11, named 'Amasya'

TC-JYB B737-9F2ER 40974 ex N974TK, dd 31.08.11, ferried to PATS Charlestown same day for long range tank installation, dd ex-Charlestown 10.12.11, named 'Denizli'

# ICELANDAIR (FI/ICE)

TF-FIA B757-256 29310 purch off lease 12.11

TF-LLX B757-256 29311 as TF-FIA

# AEREO RUTA MAYA (MMG 'RUTA MAYA')

TG-JCE DHC-6-300 422 ex TI-AYQ

# NOUVELAIR TUNISIE (NJ/LBT)

TS-NH A320-232 4623 ex F-WWBN, dd 15.12.11

# SCAT AIR (DW/VSV 'VLASTA')

UP-CJ004 CRJ-200 7901 ex LY-ARJ, dd 07.12.11, lsd fr AviaAM Leasing

# AEROSVIT (VV/AEW)

UR-AAM B737-59D 001111 ex G-GFFD, dd 04.01.12

# AIR AUSTRALIA (AGC)

TC-ETK A330-223 358 ex J-EEZA, dd 12.12.11, sub-isd fr Atlasjet

# ALLIANCE AIRLINES (EQ/ATY 'ALLI')

VH-XWO Fokker 100 11280 dd ex Woensdrecht 16.12.11

# NETWORK AVIATION

VH-NHG Fokker 100 11514 ex PH-ZFU, dd ex Woensdrecht 22.12.11

# QANTAS AIRWAYS (QF/QFA)

VH-OQL A380-842 074 ex F-WWSL, dd 15.12.11

VH-VZT B737-830 34186 named 'Kalgoorlie, correct name'

VH-VZV B737-830 34189 dd 06.12.11, named 'Palm Cove'

VH-VZW B737-830 39359 dd 27.12.11, named 'Beaconfield'

# VIRGIN AUSTRALIA (DL/VQZ)

VH-VQZ B737-8FE 33798 named 'Margaret River'

VH-VUF B737-8FE 34168 named 'Hobart Honey'

VH-YFE B737-81D 39414 named 'Sunshine Beach'

VH-YFK B737-8FE 41004 dd 12.12.11

VH-YID B737-8FE 38709 named 'Long Beach'

VH-YIE B737-8FE 38708 dd 01.12.11, named 'Rainbow Beach'

VH-ZPR E190-100AR 0424 dd 21.12.11, named 'Fingal Beach'

VH-ZPT E190-100AR 0424 named 'Dundee Beach'

# JETSTAR PACIFIC AIRLINES (BL/PIC)

VH-A190 B737-446 27383 st KV Aviation 01.12.12 & sd back

VH-A191 B737-446 27306 as VH-A190

# VIETJETAIR (VIC)

VN-A666 A320-214 3739 ex 9K-EAA, dd 30.11.11

VN-A668 A320-214 3791 lsd fr Alafco

VN-A669 A320-214 3791 ex 9K-EAB, dd 12.11, lsd fr Alafco

VN-A669 A320-214 3791 ex 9K-EAB, dd 12.11, lsd fr Alafco

# VIETNAM AIRLINES (HV/HVN)

VN-A331 A321-231 4945 ex D-AZAC, dd 02.12.12

VN-A332 A321-231 4971 ex D-AZAH, dd 29.12.11

# INDIGO (IG/IGD 'IFLY')

VT-IEH A320-232 4947 ex D-AXAR, dd 06.12.11

VT-IEH A320-232 4947 ex D-AXAV, dd 06.12.11, to BRS & lsd back

# JETLITE (J2/JLL 'LITEJET')

VT-JLH B737-96NER 35223 ex M-ABEN, dd 19.12.11, lsd fr GECAS

VT-JLJ B737-96NER 35225 ex M-ABEO, dd 22.12.11, lsd fr GECAS

# PINNACLE AIR

VT-VTP Ce 208B 0000 ex N601SU, regd 24.01.12

# QUICKJET CARGO AIRLINES

VT-FQA ATR 72-202(F) 313 ex HB-AFH, dd 19.12.11, lsd fr Famer

# SPICE JET (SG/SEJ)

VT-SGW B737-9GJER 37363 dd 22.12.11, named 'Paprika'

VT-SUH Dash 8-Q402 4389 ex C-GKVP, dd 05.12.11

# AEROMEXICO CONNECT (SD/SLR)

XA-ACC E190-100LR 0499 dd 06.12.11

# MAGNICHARTERS (GMT)

XA-UQA B737-322 23952 rr N192AQ 08.12.11

canx back to XA-19.12.11

# VOLARIS (VA/VON)

N508VL A320-233 4950 ex D-AXAS, dd 13.12.11, lsd fr Jackson Square named Andrea

# XA-VQA A319-133 2771

OM-BEX B737-382 24365 ex EI-D-K, dd 07.01.12, sub-isd fr AirExplore

XU-TSC B757-256 26251 ex YL-BDB, dd 12.11, lsd fr ILFC

# SMARTLYNX AIRLINES (SV/VAT)

YL-BBC A320-211 0142 ferried to Riga 12.12.11 on ret

fr NASair after Hajj lease

YL-LCC A320-211 0310 ferried to Riga 11.12.11 on ret

fr NASair after Hajj lease

# TACA INTERNATIONAL (TA/TAI)

N682TA A320-233 4906 st GECAS & lsd back

N684TA A320-233 4944 ex F-WWBN, dd 20.12.11

st GECAS & lsd back

# AEROPOSTAL - ALAS DE VENEZUELA (VA/ALV)

N794AG MD-82 49794 rr YV505T

# ASERCA AIRLINES (R7/OCA 'AROSCA')

YV-493T MD-82 49517 noted in service at Caracas 10.11

YV-2749 MD-82 49258 ex N246AA

YV MD-82 49259 ex N248AA, noted at Caracas 10.11 still as N248AA

# ESTELAR

YV-498T B737-2E3 22703 ex HC-CFO, dd 10.11, lsd fr Aircraft Trading Enterprises

# AIR NEW ZEALAND (NZ/ANZ)

ZK-OJS A320-232 4926 ex F-WWBT, dd 13.12.11, lsd fr BOC

# AIRWORK FLIGHT OPERATIONS (AWK)

ZK-JTQ B737-476 24442 ex VH-TJQ

ZK-TLF B737-408(F) 24709 ex N709AG, dd 20.01.12, lsd fr Aurora, leasing

# SOUTH AFRICAN AIRWAYS (SA/SAA 'SPRINGBOK')

ZS-SKU A330-243 1271 ex F-WWYX, dd 07.12.11, lsd fr Airastle

# VISTA GEORGIA

4L-AJB B737-5H6 27354 ex N495MS, dd 27.12.11, lsd fr GECAS

# SERVICES AIR

SX-HJI A310-304(F) 413 ex VT-EJ

# BLUE BIRD AVIATION (BBZ 'COBRA')

5Y-VVU Dash 8-Q402(F) 4008 ex SE-LSM, dd 31.12.11

# ZB AIR

5Y-Ce 208B 2318 ex N60207, dd 29.11.11

# SENEGAL AIRLINES

OY-CU ATR 42-500 497 ex A40-AL, dd 10.11, lsd fr Cimber Sterling

# REDJET (REJ)

8P-KEY MD-83 49344 ex N562AA, dd 07.12.11, named 'nikitastic'

# MEGA GLOBAL AIR

8Q-MEM B767-300ER 26206 ex C-GHPT, dd 19.01.12, lsd fr GECAS

# AIRASIA (AK/AXM 'ASIAN EXPRESS')

HS-ABV A320-216 4979 ex D-AVVM, dd 23.12.11, lsd to Thai AirAsia

9M-AQF A320-216 4582 ex PK-AXQ, ret fr Indonesia AirAsia

9M-AQG A320-216 4477 ex PK-AXM, ret fr Indonesia AirAsia

9M-AQH A320-216 4969 ex D-AVVB, dd 19.12.11

9M-AQJ A320-214 4917 ex D-ARFX

# MALAYSIA AIRLINES (MH/MAS)

9M-FFD B737-85F 30007 ret fr Flytiffly

9M-FFE B737-85F 30567 as 9M-FFD

9M-FFF B737-85F 39320 as 9M-FFD

9M-MXG B737-8H6 40134 dd 20.12.11

# JETSTAR ASIA (JQ/JSA)

9V-JSO A320-232 4922 ex F-WWIK, dd 05.12.11, lsd fr Qantas

# SINGAPORE AIRLINES (SQ/SIA)

9V-SW B777-312ER 34574 Star Alliance colours

# TIGER AIRWAYS (TR/TGW 'STRIPE')

9V-TRC A320-232 4918 ex F-WWDM, dd 01.12.11

9V-TRD A320-232 4931 ex D-AXAD, dd 08.12.11

# CAR-BREAN AIRLINES (BW/BWA)

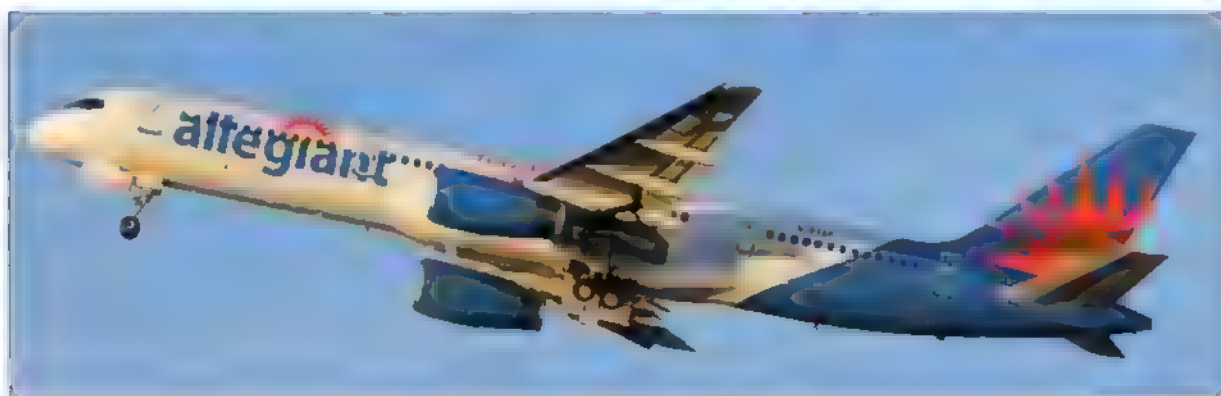
9V-ITB ATR 72-600 973 ex F-WWLX, dd 16.11.11

We welcome any feedback on this listing.

(The listing is alphabetical with reference to the registration of the country of origin.)



Southern Air Boeing 747-400 (BD5F) N469AC (c/n 27602) was rolled out at Amsterdam Schiphol in February after painting in the carrier's full colours. It had previously been operating in a mainly white colourscheme. (John Holliday)



This ex Thomson Boeing 757-204, G-BYAP (c/n 27236), is pictured departing Norwich, UK on January 27 after repainting. It is the latest addition to the Allegiant fleet. (John Holliday)

The latest training aids available for the aviation professional

## 'How To Land Your First Pilot Post'

The Baltic Aviation Academy (BAA) training centre delivered a 'webinar' in early February on how to find a job for new commercial aviation pilots. Aušra Garuckaitė, the self-sponsored pilot manager at the BAA, covered topics including: 'Hunting for a pilot post – a successful interview with an airline'.

"Although the pilot job market outlook is highly promising, landing a first job as a pilot can still be quite a challenge," he said. "This is reflected in the number of inquiries we receive. In 70% of them pilots ask for help with launching their professional careers."

BAA has recently conducted a survey

about the pilot recruitment process and interviewed many of its own instructors as well as employees of Small Planet Airlines, LOT Airlines, White Airways, Vueling Airlines and SkyWork Airlines. Although the pilot recruitment process may differ among companies, it usually involves four stages with pre-selection after each of them: CV evaluation, an HR department interview followed by tests and psychological assessments, a full flight simulator (FFS) test and a technical interview with instructors. Finally, the remaining candidates are invited for a meeting with the Director of Flight Operations. (Photo BAA)



## New JAA ATPL ProPilot Programme

The UK's Airline Career Academy (ACA) is launching a full-time airline pilot training course, taking student pilots from zero hours to a 'frozen' ATPL in approximately 12 months. ACA is approved to conduct training for both FAA licences (for USA registered aircraft) and JAA licences (for aircraft registered within Europe).

The ProPilotProgramme is delivered by ACA under a CAA approval gained by Space Coast Aviation – a subsidiary of ACA, based on Merritt Island, Florida, USA. The training is conducted in two Florida locations: Kissimmee near Orlando, and Pan Am's International Training Academy in Miami, with the final part of the programme being completed in Europe at Malaga in Spain, where the ATPL is finally achieved.

## Apprenticeships At British Airways

British Airways is offering apprenticeships to young people who want to start a career in the airline industry. The programme is designed to provide a mix of classroom-based learning and on-the-job training. Apprentices will be trained in a range of skills, including customer service, cabin crew, and ground crew. The programme is open to young people aged 16 and over who are currently in full-time education. For more information, visit [www.britishairways.com/apprenticeships](http://www.britishairways.com/apprenticeships).

## 50th Flight Attendant Trained

Exclusive in-flight catering service, Alison Price on Air, has completed the training of its 50th Flight Attendant as part of its ongoing educational programme aimed at improving airborne catering services. The training, which is conducted by Executive Chef Richard Cubbin, demonstrates the company's commitment to revolutionising in-flight cuisine.

"I have believed from day one that in order to raise the level of catering in the industry you must start with education... that is why we hold these free-of-charge courses for all Flight Attendants who wish to attend," said Daniel Hulme, In-flight Director for Alison Price on Air.

The training has been running since the launch of the company in May 2010. Courses include a range of topics including food presentation, understanding the importance of quality produce, food handling skills and how to select balanced, seasonal menus. (Photo Alison Price on Air)





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# Rolls-Royce: Powering the Whispering Giant

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The Trent 900 is the fourth member of the Trent family, and holds pride of place as the largest jet engine ever produced by Rolls-Royce. 'Powering the Whispering Giant' plots the Trent 900 journey in photographs from concept to design, development, testing,



first flight on the A340 flying test bed, flight test on the A380, route proving, service readiness and entry into service in October 2007.

This colourful publication combines the best images taken throughout the programme, with descriptions of each major step along the way, to offer the reader a unique insight into one of the most public and most exciting new jet engine programmes ever undertaken.

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**Rolls-Royce**

## Shaping Europe's Future Networks

Tallinn, Estonia  
20-22 May 2012

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Information  
for the  
traveller.

## Award For Titan Airways

At the January Pro Sky Airliner Conference in Cologne, more than 100 representatives of airlines and service providers selected Titan Airways as the winner of the coveted Aviation Excellence Award 2012.

Following the earthquake and tsunami in Japan in 2011, the carrier took just 20 hours from the first phone call to the aircraft taking off for Japan. It carried over 55 employees of a German relief organi-

sation together with search and rescue dogs and cargo from Frankfurt/Hahn to the disaster area. This enabled aid workers to assist the Japanese authorities in the rescue operation and evacuation of the victims.

Second prize also went to a UK carrier – Jet2 – which stood in for a competitor at short notice and, within 72 hours, organised a tour through the Middle East

for Daniel Barenboim and the Berlin State Opera orchestra. Third place was awarded to Swiss carrier Helvetic Airways, which sent top performers of the travel agents Kuoni to Rostock on a nostalgic tour of the East. The aircraft interior, outward appearance of the crew and even the in-flight announcements were all designed to recreate the atmosphere of the old East German airline Interflug.



Titan has also expanded into the executive jet market with the addition of this Cessna 525A CitationJet CJ2, G-PDWG (c/n 0485).

## Automatic Seat Belt Release

Airlines are becoming increasingly concerned about passengers who (after landing) think that the aircraft has stopped at the gate and unstrap and stand up before it has stopped. The threat of litigation over any injuries incurred has led to investigations into how to stop the practice. Ahead of the Aircraft Interiors Exhibition

at Hamburg, Germany at the end of March, Prial Aerospace of the USA has revealed an auto-locking seatbelt – controlled by the cabincrew – to prevent people standing up. It is simply an extension of the modern computer systems being introduced by Airbus and Boeing to monitor passenger loads and will only be enabled when on

the ground.

"Passengers standing up in the aisles are becoming a big problem for carriers," said the company's CEO, Ralf Pollo. "This device is perfect for keeping them in their seats until it is safe to stand up. Airlines can modify it so that First Class passengers get off first followed by Business Class."

## Eye Scanners Deactivated

The UK airport network's fleet of operational IRIS eye scanners has been reduced by half, according to a statement issued by the UK Border Agency (UKBA). Although they'll be retained at London/Heathrow Airport and Gatwick Airport for some months yet, the IRIS (Iris Recognition Immigration System) technologies installed at Birmingham Airport and Manchester Airport have now been deactivated.

The Heathrow and Gatwick IRIS devices will operate until the London 2012 Olympics has finished, at which point they'll have been in service for between six and seven years. The UKBA's move follows reports of passenger delays caused by UK airport IRIS systems. Not only have some of the machines been turned off, their wider future is presently being considered.

## Design an Airliner



Even *Airliner World* Editorial staff find it difficult to get away from the job, and after the recent snowfall in Peterborough, Assistant Editor Craig West and his housemates decided to see how difficult it was to design and build a modern twinjet!





Information  
for the  
traveller.

Organisers of enthusiasts' shows and events worldwide are invited to submit relevant details for inclusion in this listing, free of charge - address correspondence to the editorial department or visit our website at [www.airlinersworld.com](http://www.airlinersworld.com)

**Apr 22**  
LGW2012, the 23rd Gatwick International Aircraft Enthusiasts' Fair, K2 Pease Pottage Hill, Crawley West Sussex, UK. Tom Singfield: +44 (0) 1403252628 [LGW2012@gatwickaviationsociety.org.uk](mailto:LGW2012@gatwickaviationsociety.org.uk) [www.gatwickaviationsociety.org.uk](http://www.gatwickaviationsociety.org.uk)

**May 13**  
Heathrow Aircraft Enthusiasts' Fair, Kempton Park Racecourse, Sunbury-on-Thames, Middlesex, UK. Keith Mann ng +44 (0)1372 725063 (evenings) [to@honeyunder.co.uk](mailto:to@honeyunder.co.uk) [www.aircraftenthusiastsfair.co.uk](http://www.aircraftenthusiastsfair.co.uk)

**Jun 2**  
Paris 2012, Airliner Enthusiasts' Convention, Best Western Hotel, Roissy, Charles de Gaulle Airport, Paris, France [avim.mp@orange.fr](mailto:avim.mp@orange.fr) [www.avimage.org](http://www.avimage.org)

**Jul 14/15**  
Aviation and Transport Fair, the Visitors' Centre, Manchester Airport, UK. [www.tasmanchester.com](http://www.tasmanchester.com)

**Jul 16-22**  
Guild of Aviation Artists 42nd Annual Summer Exhibition, Mall Galleries, The Mall, London. Susan Gardner Secretary/Administrator +44 (0) 1252 513123

**Aug 24-28**  
Airliners International 2012, Memphis, USA. [www.a.i.2012-memphis.com](http://www.a.i.2012-memphis.com)

**Oct 6**  
Vancouver Airline and Aviation Collectibles Show, Oakridge Centre Mail Auditorium, Vancouver, Canada [www.vancouvercollectibleshow.com](http://www.vancouvercollectibleshow.com)

### Shows/Displays

**Mar 14-18**  
India Aviation, Hyderabad. [www.india-aviation.in](http://www.india-aviation.in)

**Mar 27-29**  
Aircraft Interiors Expo, Hamburg, Germany. [www.aircraftinteriors-expo.com](http://www.aircraftinteriors-expo.com)

**May 14-16**  
EBACE, Geneva, Switzerland. [www.ebace.aero](http://www.ebace.aero)

**Jul 9-15**  
Farnborough International 2012. [www.farnborough.com](http://www.farnborough.com)

**Sep 11-16**  
ILA Berlin 2012, Berlin/Brandenburg Airport, Germany [www.ila-berlin.de](http://www.ila-berlin.de)

**Sep 19-21**  
ERAA, Dublin. [www.eraa.org](http://www.eraa.org)

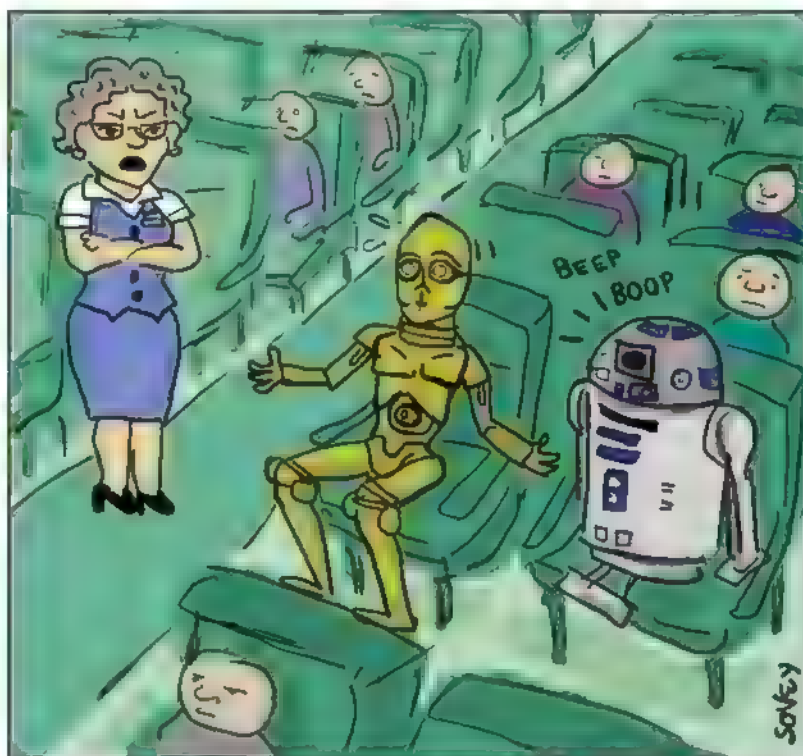
**Sep 30 - Oct 3**  
World Routes 2012, Abu Dhabi. [www.routesonline.com](http://www.routesonline.com)

**Oct 30- Nov 1**  
NBAA, Orlando, Florida, USA. [www.nbaa.org](http://www.nbaa.org)

**Nov 13-18**  
Airshow Zhuhai, China. [www.airshow.com.cn](http://www.airshow.com.cn)

**Dec 11-13**  
MEBA, Dubai. [www.meba.aero](http://www.meba.aero)

Events are subject to change without Airliner World's knowledge. Please check details prior to travel.



*"I don't care if you are celebrities. We still can't close the door until you POWER DOWN!"*

## Top Ten Meals

Flight comparison website Skyscanner has published its ranking of the world's best airlines for in-flight meals. The results were collated after more than 100 passengers from around the world were asked to score the food on 19 different airlines, based on presentation and taste.

The top airlines were:

- |                       |                   |
|-----------------------|-------------------|
| 1. Turkish Airlines   | 6. Cathay Pacific |
| 2. Singapore Airlines | 7. KLM            |
| 3. Etihad             | 8. Qantas         |
| 4. Aer Lingus         | 9. Aeroflot       |
| 5. Emirates Airline   | 10. Air France    |



Enter Air's Boeing 737-400, SP-ENF (c/n 25429), was painted in these special titles at Warsaw Chopin Airport. 'Dziękujemy Witkor' was one of the Polish-based carrier's senior captains who retired at the end of 2011. (Tomasz Zylowski)



Following on from the Finnair article in the March issue of Airliner World, Javier Rodriguez has pointed out that the carrier also used this Airbus A300B4-203, OH-LAA (c/n 299), on charter flights. It is pictured at Tenerife in December 1997.



## Departure Gate

Information  
for the  
traveller.

Operated by the Californian Department of Forestry, this North Sugar's autobiography 'The Way I See It: Rants, Revelations and Rules For Life' emerging as the book most left behind by passengers in their seat back pocket. This was closely followed by 'Glorious: My World, Football and Me' – an insight into the mind of Gazza (Paul Gascoigne).



# Firefighters

## Airborne (not so) Good Reads

A survey by Virgin Atlantic's cabin crew during last Christmas resulted in Lord Sugar's autobiography 'The Way I See It: Rants, Revelations and Rules For Life' emerging as the book most left behind by passengers in their seat back pocket. This was closely followed by 'Glorious: My World, Football and Me' – an insight into the mind of Gazza (Paul Gascoigne).

The top ten list included:

1. 'The Way I See It: Rants, Revelations and Rules For Life' by Lord Alan Sugar
2. 'Glorious: My World, Football and Me' by Paul Gascoigne
3. 'Santa Baby' by Katie Price
4. 'The World of Downton Abbey'
5. 'I Heart Vegas' by Lindsey Kelk
6. 'Twisting my Melon' by Shaun Ryder
7. 'May I have your attention please?' by James Corden
8. 'Screw Business as Usual' by Sir Richard Branson
9. 'An Idiot Abroad: The Travel Diaries' of Karl Pilkington
10. 'The Help' by Kathryn Stockett

## Royal Jet Expands Medevac Capability

International luxury flight services company Royal Jet, of the UAE, has enhanced its capability to meet the steady growth and demand for Medevac services. The move follows a significant increase in such missions in 2011, compared with the previous year, and the company has taken substantial steps aimed at providing further capacity and flexibility. It is ensuring availability of aircraft and its full range of medevac services.

"Being one of only a few Medevac operators worldwide that cover the full range of cabin sizes, we have clearly established its leadership role in the air ambulance market," said Shane O'Hare, President and CEO of Royal Jet. "More importantly, the fact that we own our fleet of aircraft which can easily and readily be converted into air ambulances, we can provide the market and our customers with a high level of confidence. We have performed over 1,310 such missions over the last few years."

## Boeing 787 World Records

Jonathan Gaffney, President and CEO of the National Aeronautic Association, has presented Boeing with two certificates confirming the two world records earned by the 787 Dreamliner in late 2011.

It completed the longest flight for an aircraft in its weight class (440,924 to 551,155lb) with a 10,336nm (19,142km) flight to Dhaka, Bangladesh. This had previously been held by the Airbus A330 with a 9,126nm (16,901km) flight in 2002. The crew then continued eastbound and returned to Seattle 42 hours and 26 minutes after their initial departure, completing the fastest around-the-world trip for the same weight class at 470kts (871km/h). There was no previous similar speed record for this weight class.

A flock of more than 100 birds and Air France Airbus A320-214, F-GKOE (c/n 1879) had a 'disagreement' – fortunately at a relatively slow speed on take-off. There was relatively minor damage.



## Multiple Birdstrike

## Final Call... Shush, Passengers Sleeping!

Passengers on a flight from London to New York were asked to remain seated and fasten their seatbelts for a period of time. The flight was delayed due to a bird strike on the runway. The passengers were asked to remain seated and fasten their seatbelts for a period of time. The flight was delayed due to a bird strike on the runway.



# Olympic Airline Livery Competition

OLYMPIC  
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COMP



Closing date for entries is 12:00 GMT on July 6, 2012 and winners will be notified no later than July 9, 2012

**FOLLOWING A FANTASTIC RESPONSE TO OUR PREVIOUS 'NAME AN AIRLINE' COMPETITIONS, THE AIRLINER WORLD EDITORIAL TEAM IS GETTING INTO THE SPIRIT OF THE LONDON 2012 OLYMPICS BY INVITING OUR READERS TO RISE TO A FRESH CREATIVE CHALLENGE.**

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**THE WINNER WILL BE SELECTED BY THE EDITORIAL TEAM, BASED ON FACTORS INCLUDING ORIGINALITY, STYLE AND THE USE OF COLOUR.**

be operated by a particular carrier. Be quick off the blocks by finding design ideas from features in the magazine during the next three months and design your entry in any medium and size of your choice. Our Olympic design winner will clinch a specially commissioned framed print of their entry and enjoy the prestige of seeing their work published in *Airliner World* – along with the best of the rest. For your chance to win simply send us your

'Olympic Airline' design, name, address, telephone number and email to **Olympic Airline Competition, Airliner World April 2012, Key Publishing, PO Box 100, Stamford, Lincolnshire PE9 1XQ.**

Alternatively, email your entry as an image or Pdf to [barry.woods-turner@keypublishing.com](mailto:barry.woods-turner@keypublishing.com). Please mark the subject line of your correspondence with the words 'Olympic Airline'.

On occasions Key Publishing Ltd may make offers on products and services that they believe to be of interest to our customers. If you do not wish to receive this information please write NO INFORMATION clearly on your entry. The judge's decision is final and no correspondence will be entered into. The organisers are not responsible for entries lost or damaged in the post and proof of mailing/postage is not proof of delivery.

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## AIR SAFETY

Reports and details of recent incidents.

# EASA Expands Directive on A380s

The European Aviation Safety Agency (EASA) has expanded a previous Airworthiness Directive (AD) regarding the inspection of the wings on Airbus A380s, for possible cracks. A previous AD, which became effective on January 24, followed the discovery of cracks in the wing brackets on a number of A380s

and applied to aircraft that had accumulated up to 1,800 flight cycles. The latest directive, which mandates "a so-called High Frequency Eddy Current Inspection of the wings", applies to all A380s in service.

Aircraft that have accumulated less than 1,216 flights will have to be inspect-

ed upon completion of 1,300 flights. Aircraft between 1,216 and 1,384 flights must be inspected within six weeks of February 13, 2012. Aircraft that have completed more than 1,384 flights were to have been to be inspected within three weeks of the date of the latest AD, 2012-026, issued on February 8.



Piper PA-31T Cheyenne, CC-PLL (c/n 31T-7920005), was declared damaged beyond repair by the insurance company after a wheels-up landing at Marcel Marchant Bunder airfield Puerto Montt, Chile on January 19, 2012.

AVIATION

## New Safety Recommendations

An International Civil Aviation Organization (ICAO) panel that includes a representative from the UAE has recommended new international standards for preventing fires on aircraft that are carrying highly flammable lithium batteries. The UAE and the US are also testing ways to fight such fires so

as to propose additional reforms.

Both initiatives arose after a Boeing 747 operated by UPS and carrying lithium batteries caught fire soon after taking off from Dubai, UAE and subsequently crashed, killing both pilots, in September 2010.

An ICAO dangerous goods panel has rec-

ommended that airlines inspect packages of lithium batteries before loading them on aircraft and that large shipments of such batteries should be labelled as dangerous goods, shippers should be trained in handling them, and pilots should be notified that they are on board.

DATE	REG	C/N	TYPE	INCIDENT	LOCATION	NOTES
Jan 21	N81MR	622	Learjet 35A	Guardian Flight	USA	Hit snow bank on landing
Jan 27	N340NF	0624	Boeing 737-700	Delta Air Lines	USA	Crashed on approach
Jan 30	N22WN	34290	737-700	Southwest Airlines	USA	Hit light pole on taxi
Jan 30	9Q-CUN	1A3-006-11	An-28	TRACEP Congo Aviation	DR Congo	Crashed en route
Feb 2	N991AK	U 28	Beech 99	Lake Clark Air	USA	Damaged after landing short of runway
Feb 2	N31WS	35-027	Learjet 35	Extrapoint	USA	Runway excursion on take-off
Feb 2	N53RP	U 195	Beech 99	Ameriflight	USA	Undercarriage collapsed on landing
Feb 3	F-GKXE	1879	A380-300	Air France	France	Multiple birdstrikes on take-off
Feb 7	Mil-8		Yuvya Avia		Russia	Destroyed in hangar fire
Feb 7	Mil-8		Yuvya Avia		Russia	Destroyed in hangar fire
Feb 7	An-2		Yuvya Avia		Russia	Destroyed in hangar fire
Feb 9	YV2663		Boeing 737-700	Avianca	Venezuela	Ditched
Feb 9	8Q-MAT	146	DHC 6-300	Maldivian Air Taxi	Maldives	Damaged in landing accident
Feb 10	VF-1303		Boeing 737-700	Boeing Air Force	Bosnia	Crashed on humanitarian mission
Feb 11	N382AL	31A-142	Learjet 31	Air Life Denver	USA	Undercarriage damaged on landing
Feb 11	EY-106		Boeing 737-700	MATC	Afghanistan	Crashed en route
Feb 12	N25A	1104	Gulfstream IV	Private	DR Congo	Runway excursion on landing
Feb 13	YR-SBK	033	Space 2000	Carpatair	Romania	Runway excursion landing in snow
Feb 14	Mil-8		Air Koryo?		North Korea	Crashed on landing
Feb 15	YH-UZA	AT-502	Sweazingen Merlin IV	Toll Aviation	Australia	Landed with wheels retracted
Feb 17	RF-0152		Lei 410UVP	Russian Air Force	Russia	Written off after striking truck on landing
Feb 17	XY-AIT	543	ATR-72-212A	Air Kambazwa	Myanmar	Nosewheel collapsed on landing
Feb 19	N4772A	095	Ce 414A	Private	USA	Landed short of runway in snowstorm
Feb 21	130342	5207	CC-130	Canadian Air Force	USA	Damaged after airborne fire and emergency landing
Feb 21	XC-PFB	95018	AC690	Mexican Police	Mexico	Crashed en route
Feb 27	N637RW	051	E170SE	Shuttle Express	USA	Landed with collapsed nosewheel
Feb 27	ST-GFB	202M25	Mil Mi-8MTV	Sudan Government	Sudan	Caught fire after take-off and crashed

## A380 Engine Failure

The investigation into the engine failure onboard a Qantas Airbus A380 is nearing conclusion. The Australian Transport Safety Bureau has completed the data gathering phase and will now start analysing that data. A final report into the incident, during which the aircraft suffered an uncontained engine failure, is now expected in the third quarter of this year.

## Accident Classified as CFIT

The Transportation Safety Board (TSB) of Canada has issued a progress report on its investigation into last year's First Air Boeing 737 accident.

The Board confirmed that the weather "was variable with fluctuations in visibility and cloud ceiling. Technical examination of the aircraft at the accident site revealed no pre-impact problems." It is classifying this occurrence as a controlled flight into terrain (CFIT) accident.



# AEROPRINTS

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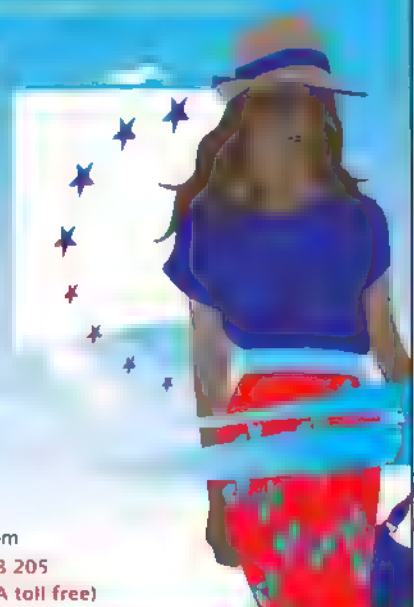
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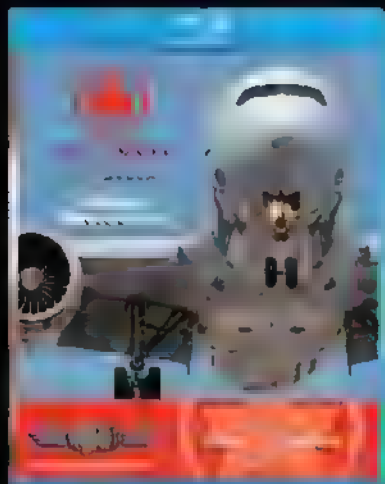
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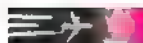


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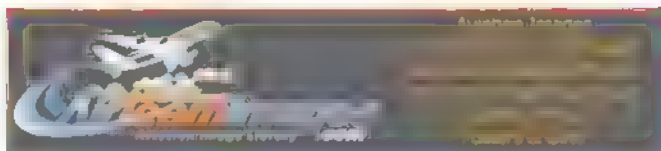


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# Norwegian

## FIRST EUROPE, THEN THE WORLD

**N**orwegian Air Shuttle is the second-largest airline in Scandinavia by passenger volume, (after state-backed Scandinavian-SAS) and is the third largest budget carrier in Europe. The operator offers a high-frequency domestic flight schedule, regular flights to business destinations such as Amsterdam, London and Paris, and lower frequency services to international leisure destinations. Last year, the airline carried more than 16 million passengers on its fleet of 62 Boeing 737 aircraft, and now Norwegian is set to expand further, having announced a major order in late January for new, fuel-efficient aircraft from both Boeing, its current supplier, and Airbus.

The airline has confirmed plans to buy 100 Airbus A320neos and the same number of 737 MAXs, along with extensive options for additional examples of both types. It is also purchasing a further 22 examples of Boeing's existing 737-800 model (in addition to those currently being delivered to the carrier) to add capacity and pare operating costs. The move will increase the number of aircraft operated by the carrier over the next eight years from 62 to as many as 200, allowing Norwegian to directly

challenge SAS. The new aircraft will also increase the airline's fuel efficiency by 11-15%, reportedly allowing it to fly for less than half of what it costs rival SAS.

For Norwegian, which operates an all-Boeing fleet of 48 737-800s and 14 of the older -300 series, the orders represented several firsts; most significantly, it was the carrier's first deal with Airbus. Norwegian also became the first European customer for the Boeing's 737 MAX, launched by the US manufacturer in late 2011 in direct competition with the A320neo. Airbus has said that it expects the first deliveries to be made in late 2015, while Boeing's offering will follow in 2017. The airline confirmed that some of the new aircraft will be used to replace existing 737-800s as they reach seven or eight years of age. It aims to operate a fleet of 241 aircraft by 2022.

Norwegian's co-founder and CEO Bjørn Kjos accepted that the challenge will be to place the new planes on routes and markets where they can fill the seats, "but the challenge of growing from eight aircraft to 50 in the past few years was much greater than it will be to grow to 200 aircraft."

Announcing the order, Kjos said; "High costs and old aircraft are a dangerous mix. Not buying new planes would >>

The red forward fuselage makes Norwegian's livery stand out particularly well against the often snowy backdrop of the carrier's Oslo base.

E. J. Opplid

**"WITH ITS SCANDINAVIAN-BASED SHORT-HAUL NETWORK EXCEEDING ALL EXPECTATIONS AND REALISTIC AMBITIONS OF VENTURING INTO THE LONG-HAUL MARKET, THE KJOS-INSPIRED NORWEGIAN IS CLEARLY NOT LACKING AMBITION."**



Currently the third largest no-frills carrier in Europe, Norwegian is on the verge of realising its ambition to launch long-haul services. **Eryl Crump** charts the meteoric rise of the low-cost airline.





be taking a risk; you benefit from the 12-15% lower fuel burn. There is no way you can fly an old aeroplane in the future [and be economically viable], given where fuel prices are going." He added that the order will give the carrier "dominance of the northern sector of Europe."

Bjørn Kjos, a former paratrooper, lawyer, judge, fighter pilot and novelist, accepts that SAS is not the only rival Norwegian will encounter as it rolls out its ambitious expansion plans. Irish no-frills operator Ryanair has highlighted Scandinavia as a key growth target and has indicated it may introduce domestic flights in the region.

"We will not have any problems competing with Ryanair. Scandinavians are conservative and want to stick with the airlines they know. Ryanair will also

struggle to secure the crucial business customers because it flies from secondary airports and we have better leg room, reclining seats, and Wi-Fi on all the new aeroplanes," remarked the CEO.

Norwegian, which also has six 787 Dreamliners on order, is set to become the first low-cost carrier in Europe to operate a mix of both regional and long-haul routes. The airline already operates some near long-haul flights with the flying time on services from Scandinavia, and particularly its northernmost base of Trondheim, to destinations in the Canary Islands and the Middle East, in excess of six hours.

### History

The story of Norwegian Air Shuttle (NAS) started in January 1993 when Kjos and some pilot friends took control



SAS Scandinavian is Norwegian's biggest rival. Here, Boeing 737s operated by both carriers share the domestic ramp at Oslo/Gardermoen.

Arne Syre



**NORWEGIAN**  
IATA DY  
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of the bankrupt Norwegian Fokker 50 operator, Busy Bee. A subsidiary of Braathens SAFE, the carrier had been founded in 1966 and operated a regional network on behalf of its parent company, linking the cities of the west coast of Norway. Following the bankruptcy, the newly formed NAS took over Busy Bee's leases on three Fokker 50 regional aircraft and launched services on behalf of Braathens from Bergen to Karmøy, Molde, Kristiansund, Kvernberget and Trondheim. The success of the airline's early operations led to a new route between Bergen and Ålesund Airport being added the following year, increasing its schedule to 50 daily services. In 1995, the company received its fourth Fokker 50. Delivery of the latest aircraft to its fleet coincided with the carrier posting a revenue of NOK86.6 million (£9.6 million) and a profit of NOK2.9 million (£320,190).

With growing ambition, NAS launched a bid in 1996 to operate the public service obligation (PSO) routes along the west coast in cooperation with Austrian carrier Tyrolean Airways. However, with a bid of NOK267 million (£29.5 million), it was undercut by the incumbent Widerøe and missed out on the tender.

### International Ambition

By 1999, NAS operated a fleet of six Fokker 50s (expanded to seven in 2001)



and was flying 500,000 passengers a year on 20,000 flights.

In an effort to reduce its reliance on its contract with Braathens, NAS expanded its portfolio with the purchase of two helicopter operators over an 18-month period; Norwegian firm Lufttransport was acquired from CHC Helikopter Service in June 2000, followed by Ostermann of Sweden the following year. However, the air ambulance, surveillance and crew transport roles earned out by the two companies were significantly different from that of their parent carrier and both were sold in 2005.

A precursor to NAS's diversification of

**THE AIRLINE HAS  
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SAME NUMBER OF 737  
MAX8.**



business had been Braathens' threat to terminate its contract with the regional carrier, with Norwegian press reporting that the parent airline had expressed an interest in acquiring its own aircraft to operate its regional network.

During early January 2001, Braathens announced that it would terminate several routes, including the NAS-operated services from Kristiansund to Trondheim and Molde, while the frequency of others, such as Bergen

to Haugesund and the Bergen-Molde-Trondheim flight, would be reduced. The impact on NAS was significant, and the carrier was forced to withdraw one of its Fokker 50s and place it into storage.

However, one benefit of the cuts was that NAS now had the spare capacity to begin services in its own right. The airline took over the popular Stavanger to Newcastle route in early 2002; this was the first time the carrier had operated flights in its own right rather >>

Norwegian is a proud sponsor of the children's charity UNICEF, as can be seen in this special livery on Boeing 737-3K9, LN-KKW (c/n 24213).

Adrian Tennant



## BEHIND MOST FLAMBOYANT AIRLINES IS AN EQUALLY CHARISMATIC BOSS AND NORWEGIAN IS NO DIFFERENT

### A Jack of All Trades

Behind most flamboyant airlines is an equally charismatic boss, and Norwegian is no different. An aviator, lawyer, judge, businessman and author (his first title was a spy thriller, *The Murmansk Affair*, and work is reportedly underway on his second), Bjørn Kjos is the airline's CEO and co-founder. With an interest in aircrafts that stems back to the age of eight, Kjos flew Northrop F-5s and Lockheed F-104s with the Royal Norwegian Air Force before studying law.

He holds a 27.3% share in the airline, making him the joint largest shareholder alongside Norwegian Chairman Bjørn H. Klise, and admits that his entry into the airline business was quite by accident. When regional carrier Busy Bee collapsed, leaving some close friends out of work, Kjos was unable to attract enough investors to keep the airline afloat and eventually sank NOK1 million (£110,593) of his own money into the business and remains one of the last of the original investors.

With many rival carriers falling foul of the difficult market conditions, Kjos has been quick to highlight that Norwegian would not buy out failing airlines, but would rather fill any voids left by their departure, as it did when Spanair ceased operating. "We are strong in the northern region and that's where we'll concentrate on. I think central Europe is very much covered," said the CEO.

Despite the turbulent conditions, Norwegian has placed a firm order for 200 new aircraft, attracting criticism from some sectors of the industry. Kjos brushed aside suggestions that the move was risky, a sentiment echoed by the airline's shareholders with stock now trading 19% higher than prior to the order. The order places the airline, which will have an eventual fleet exceeding 220 aircraft, into a similar league to Irish no-frills operator Ryanair. (Photo Norwegian)



than wet-leasing its aircraft to Braathens. NAS flew a twice-daily rotation between the two cities, while Widerøe, whose services were launched on the same day, operated a third.

The merger of Braathens with SAS in November 2001 proved to be a significant turning point. NAS launched a bid to operate its domestic network in its own right on a permanent basis, though SAS rejected the move in favour of employing subsidiaries SAS Commuter or Widerøe on the services. "I think that they [SAS]

regret it now, or at least they should," the CEO quipped.

Spurred on by this rejection, NAS announced in April 2002 that it would start domestic scheduled services as a low-cost carrier on the busiest routes in direct competition with SAS. It added that this was on the condition that the Norwegian authorities banned frequent-flyer programmes, and that SAS were prevented from cross-subsidising its domestic routes to undercut NAS. The Norwegian Competition Authority agreed

In late January 2012, Norwegian became the first European customer for the Boeing 737 MAX after placing an \$11.4 billion order for 100 aircraft. (Boeing)







#### NORWEGIAN - CURRENT FLEET

Aircraft	In Service	Orders	Options	Notes
Airbus A320neo	0	100	50	Expected to enter service in 2015
Boeing 737-300	14	0	0	To be phased out during 2012
Boeing 737-800	48	80	2	Oldest aircraft to be replaced by newer examples and the A320neo from 2017
Boeing 737 MAX	0	100	100	Expected to enter service in 2017. Replacing 40 older Boeing 737-800s
Boeing 787-8	0	6	0	Due for delivery in late 2012, expected to enter service in 2013
<b>Total</b>	<b>62</b>	<b>286</b>	<b>152</b>	

#### NORWEGIAN - HISTORIC FLEET

Aircraft	Total	Introduced	Retired
Boeing 737-500	1	2002	2003
Fokker 50	7	1992	2004
McDonnell Douglas MD-80	5	2008	2009
McDonnell Douglas MD-80	3	2008	2009

with the carrier and introduced legislation in March 2000 to this effect, opening the doorway for SAS to compete head on with SAS.

The new-look carrier re-branded itself as Norwegian on September 1, 2002, and added the first jet type, a Boeing 737-505, LN-BRU (c/n 25790), to its fleet. By the end of the year, this aircraft had been supplemented by two, former Transavia 737-300s. Norwegian's progression through the mid-2000s was steady, with the carrier selling its

Norwegian operates over 300 routes to destinations in 36 countries across Europe, Africa and the Middle East. (Airteamimages.com)

remaining Fokker 50s in early 2004 in order to consolidate its now all-jet fleet.

Expansion began in earnest in 2007 when Norwegian placed an order with US manufacturer Boeing for 42 737-800s. In the same year, it also inherited a fleet of eight McDonnell Douglas MD-80s when it purchased Swedish no-frills carrier FlyNordic. Under the terms of the deal, former owner Finnair was granted a 5% stake in Norwegian, with the acquisition making it the largest low-cost operator in the region.

The carrier's first international hub was established at Warsaw/Frederic Chopin Airport in Poland, with the airline using two based 737s to operate services across central Europe. Kjos revealed that while the short-lived operation was profitable, it was preferable to concentrate on Nordic operations and the base was closed in 2010.

Norwegian announced in late 2007 that it was introducing services from the newly opened Moss Airport at Rygge. The joint civil and military installation was co-located with the Royal Norwegian Air Force's air base of the same name and, at 37 miles (60km) south of Oslo, had a transfer time to the city centre >>>



Norwegian's low-cost model has proved particularly successful, despite the turbulent global market and rising fuel costs. (Airteamimages.com/Jorgen Sverreien)

Another form of income for Norwegian was its logo jets, which wore a variety of liveries. Here, Boeing 737-335, LN-KKK (c/n 29072), promotes mobile provider Network Norway. (Author)



comparable to Gardermoen. Flights were launched in spring 2008, coinciding with the introduction of Norwegian's non-stop services from Oslo and Stockholm/Arlanda to Dubai, the carrier's first destination outside of Europe.

A helpful turn of events for Norwegian's expansion was the 2008 bankruptcy of rival carrier Sterling Airlines, providing an opening into the Danish market. A hub was quickly established in Copenhagen and the most profitable

services, to Aalborg and Stockholm, were launched in addition to services linking the airline to its Oslo base.

### Increasing Success

Norwegian's traffic figures for January 2012 were the company's best ever in terms of both the total number of passengers carried and average load factor. In a month during which figures are traditionally down, the carrier enjoyed an increase of 17% against

January 2011 – the average load factor increased by 3% to 76%.

"We're very pleased with the traffic figures. For the first time, more than one million passengers flew with us during the month of January. In addition, the low-season load factor has never been higher. It's also nice to see that an increasing number of passengers appreciate our brand new 737 aircraft and free in-flight Wi-Fi," said Kjos.

He added: "Growth and market shares have no value unless the growth is profitable. We've worked strategically to grow profitably and adjust capacity to the market."

It appears that Norwegian is able to operate profitably despite the difficult market conditions that have led to the demise of several carriers. When Spanair ceased operating at the end of January, Norwegian was quick to step in and fill the vacuum with new flights between Spain and Scandinavia.

"I think there will be lots of opportunities in Europe in 2012 because there are too many airlines that have way too old fleets to be profitable with the oil prices of today," Kjos reflected.

This year, the carrier is set to continue its expansion in the Nordic region and has confirmed plans to launch 34 new routes from Denmark, Finland, Norway and Sweden, as well as increasing its capacity on 40 of its most popular routes, particularly to destinations around the Mediterranean. The carrier will also significantly increase its presence at its newest base at Sandefjord Torp Airport, 73 miles (118km) south of Oslo. In addition to the existing routes to Alicante and Malaga, the airline will use a single, based aircraft to operate to eight new destinations: Bergen, Trondheim, Evanes, Berlin, Palma, Las



One of Norwegian's more colourful logo jets was LN-KKS (c/n 29094), which wore this 'Unite for Children' livery to promote the charity, UNICEF. (Helger Nyhus)



**"WE WILL NOT HAVE ANY PROBLEMS COMPETING WITH RYANAIR. SCANDINAVIANS ARE CONSERVATIVE AND WANT TO STICK WITH THE AIRLINES THEY KNOW."**

Norwegian CEO Bjørn Kjos

Palmas, Antalya and Nice.

The addition of these new services means Norwegian will offer a choice of over 300 routes connecting its bases across the Nordic region to destinations in 36 countries across Europe, North Africa and the Middle East. The carrier's fleet is also growing at a similarly impressive rate with 16 new 737-800s delivered last year and another 13 expected during 2012.

### Enter the Dreamliner

In November 2010, Norwegian announced an order with Boeing for two 787-8 Dreamliners, with delivery of the first aircraft, which will be acquired on a 12-year lease from International Lease Finance Corporation (ILFC), expected in the latter part of 2012. The carrier confirmed that it was seeking to add further examples as it develops its longer-haul routes, with negotiations reportedly ongoing with the manufacturer. A spokesman for the airline commented that the Dreamliner's



The eye-catching colour scheme applied to this logo jet, LN-KKZ (c/n 27458), is promoting the Norwegian Insurance firm Silver. (Helger Nyhus)

Norwegian currently offers onboard Wi-Fi free of charge. The fairing on the upper fuselage contains a Ku-band antenna necessary to provide in-flight connectivity. (Helger Nyhus)

efficiencies have been an "eye-opener" and that it and the rival A350-900 mark a "revolution" for the industry.

Kjos explained that Norwegian was in talks to add as many as six additional Dreamliners to its fleet, and revealed that a deal had been struck with Icelandair in May 2011 to acquire its three examples currently on order.

Norwegian has confirmed plans to introduce the twinjet on new services to Bangkok and New York initially, while

a further 15 long-haul routes will be added to coincide with 787 deliveries. Interestingly, Kjos remarked that the airline plans to base at least some of its new 787 aircraft in Asia, and refused to rule out a move into the Asian short-haul market.

"We foresee that if we're able to fly with the Dreamliner within our existing infrastructure, but with an Asian crew, we should be able to operate the aircraft at 50% of the cost to our competitors."

With a significant number of new, fuel-efficient aircraft on order, its Scandinavian-based short-haul network exceeding all expectations and realistic ambitions of venturing into the long-haul market, the Kjos-inspired Norwegian is clearly not lacking ambition. The airline has managed to achieve remarkable success despite the difficult trading conditions that have forced other carriers out of business and, with this well demonstrated resilience in the face of adversity, Norwegian's optimism appears to be well founded. **1/4**





# nextmonth

The MAY 2012 issue of  
**Airliner World** includes:

## BOEING 777

As Boeing delivers the 1,000th example, we look at the type's history and development.

## SATA

Regional carrier linking the islands of the Azores to the European mainland.

## 'VIEW FROM ABOVE' - LONDON/HEATHROW

An air-to-ground photospread of the UK's busiest airport.

## CEBU PACIFIC

Philippine carrier with long-haul aspirations.

## LOGANAIR

Celebrating 50 years of serving Scotland.

## JAL J-BIRDS

Ten aircraft, but with a short service history.

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Airliner World's comprehensive 20+ pages of global NEWS.

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(\*UK scheduled on sale date. Please note that the overseas delivery dates are likely to be after this date.)



key

Acronyms and abbreviations have become an intrinsic part of business speak. In the commercial aviation business their usage has become unavoidable and in the following table we try to guide you through some of those most commonly-used examples in the pages of Airliner World. This list will be regularly updated.

<b>AAIB</b>	Air Accidents Investigation Branch (UK)	<b>ETOPS</b>	Extended-range Twin-engine Operation	<b>LED</b>	Light-Emitting Diode
<b>ACAS</b>	Airborne Collision-Avoidance System	<b>FAA</b>	Federal Aviation Administration (US)	<b>localiser</b>	Steering guidance element of an ILS system
<b>ADR</b>	Accident Data Recorder	<b>FAI</b>	Fédération Aéronautique Internationale (France)	<b>LORAN</b>	Long Range Aid to Navigation
<b>ALPA</b>	Air Line Pilots Association (US)	<b>FAR</b>	Federal Aviation Regulations (US)	<b>MD</b>	Managing Director
<b>ANS</b>	Airborne Navigation System	<b>FBO</b>	Fixed Base Operator	<b>MLS</b>	Microwave Landing System
<b>APU</b>	Auxiliary Power Unit	<b>FDNR</b>	Flight Data Recorder	<b>MLW</b>	Maximum Landing Weight
<b>ATC</b>	Air Traffic Control	<b>FL</b>	Flight Level (usually expressed in hundreds of feet)	<b>MoD</b>	Ministry of Defence (UK)
<b>ATP</b>	Advanced Turbo-Prop (BAe)	<b>FOD</b>	Foreign Object Damage	<b>MoU</b>	Memorandum of Understanding
<b>ATS</b>	Air Traffic Service	<b>GA</b>	General Aviation	<b>MRO</b>	Maintenance, Repair and Overhaul
<b>BAe</b>	British Aerospace (now renamed BAE Systems)	<b>GAPAN</b>	Guild of Air Pilots And Navigators (UK)	<b>MTOW</b>	Maximum Take-Off Weight
<b>CAA</b>	Civil Aviation Authority (UK)	<b>GDP</b>	Gross Domestic Product	<b>NASA</b>	National Aeronautics and Space Administration (US)
<b>CDA</b>	Continuous Descent Approach	<b>GE</b>	General Electric	<b>NATO</b>	North Atlantic Treaty Organization
<b>CEO</b>	Chief Executive Officer	<b>GECAS</b>	GE Capital Aviation Services	<b>NBAA</b>	National Business Aircraft Association (US)
<b>CIS</b>	Commonwealth of Independent States (formerly Soviet Union)	<b>GMT</b>	Greenwich Mean Time	<b>OFT</b>	Office of Fair Trading (UK)
<b>c/n</b>	Construction number	<b>GNS</b>	Global Navigation System	<b>PAPI</b>	Precision Approach Path Indicator
<b>combi</b>	Aircraft that routinely carry passengers and cargo on the main deck at the same time	<b>GPS</b>	Global Positioning System	<b>PAR</b>	Precision Approach Radar
<b>CVR</b>	Cockpit Voice Recorder	<b>GPU</b>	Ground Power Unit	<b>pax</b>	Passenger
<b>dB</b>	Decibel	<b>IACA</b>	International Air Carrier Association	<b>P&amp;W</b>	Pratt & Whitney
<b>DTT</b>	Department for Transport (UK)	<b>IAP</b>	International Airport	<b>PPL</b>	Private Pilot's Licence
<b>DME</b>	Distance-Measuring Equipment	<b>IATA</b>	International Air Transport Association	<b>PR</b>	Public Relations
<b>EADS</b>	European Aeronautic Defence and Space Company	<b>ICAO</b>	International Civil Aviation Organization	<b>RFP</b>	Request for Proposals
<b>EASA</b>	European Aviation Safety Agency	<b>IFALPA</b>	International Federation of Air Line Pilots Associations	<b>RVR</b>	Runway Visual Range
<b>ERAA</b>	European Regions Airline Association	<b>IFR</b>	Instrument Flight Rules	<b>SARS</b>	Severe Acute Respiratory Syndrome
<b>EROPS</b>	Extended-Range Operations	<b>ILFC</b>	International Lease Finance Corporation	<b>SID</b>	Standard Instrument Departure
		<b>ILS</b>	Instrument Landing System	<b>STAR</b>	Standard Terminal Arrival Route
		<b>IMC</b>	Instrument Meteorological Conditions	<b>STOL</b>	Short Take-Off & Landing
		<b>INS</b>	Inertial Navigation System	<b>TCAS</b>	Traffic alert and Collision-Avoidance System
		<b>JAA</b>	Joint Aviation Authorities (European)	<b>TWR</b>	Tower - airport control tower
		<b>LCC</b>	Low-Cost Carrier	<b>VASI</b>	Visual Approach Slope Indicator
		<b>LCD</b>	Liquid Crystal Display	<b>VFR</b>	Visual Flight Rules
				<b>VMC</b>	Visual Meteorological Conditions
				<b>VOR</b>	VHF omni-directional range (radio beacons)



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A close-up photograph of a male and a female pilot in their cockpit. They are both wearing white pilot uniforms with dark blue ties and epaulettes. The male pilot is on the left, and the female pilot is on the right, both smiling warmly at the camera. The cockpit's instrument panel and controls are visible in the background.

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